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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, Rural Economy & Mechanic Arts.

Vol. 7.

BALTIMORE, April, 1870.

No. 4.

HOMESTEAD PAPERS No. 3.

THE COUNTRY HOME—HOW TO IMPROVE AN OLD HOMESTEAD.

It is not every one in the country who can afford to build, nor is it in many instances necessary to undertake to do so. Many of the old dwelling houses in use are strong and sturdy looking, and are very often really better built throughout than a good many of our modern structures are. In our previous papers on this interesting subject we have proceeded on the theory that the house is to be built, and have thereupon discussed the question of the site, the aspect and its surroundings. In respect to such a house we have taken the ground that by a due arrangement of its parts, and by proper attention to its details, it need not cost any more than a much uglier one, whilst it may be made much more comfortable, much more convenient and much more ornamental. Now, comfort, convenience and ornament combined are the essentials of a house where good taste is to be consulted, and the sentiment of local attachment strongly developed. An oblong box of a house, with great staring windows, no shutters, and only a forlorn looking porch to mark the entrance, and but little wider than the door it covers, creates no pleasurable emotion either to the family that inhabits it or the stranger who gazes at it. Instead of inviting it repels. There is no sense of beauty about it exteriorly, nothing winning in its interior arrangement. It is simply an oblong box weather-boarded, pierced in certain places with windows that stare at one, and cut up inside into a number of smaller boxes, cold and cheerless looking, and with but few, if any, of those sweet influences that should cluster about a home. The human mind is so constituted that it is apt to take the color, so to speak, of its surroundings. It is true, that after all is said and done, the family makes the home—the love that broods there, and the tender amenities that distinguish it. But it is equally true, though the rule undoubtedly admits of noble exceptions, that as the home is so the family is. It is, moreover, a mistake to suppose that money spent in

furnishing the interior of a country house with a simple grace in accordance with the means of the owner, and in breaking up its formal and forbidding exterior, is money spent in vain. The charm of such changes lies in the influence they have upon character; upon the better tastes they develop, and the pride in housekeeping which is sure to follow. The improvement of the homestead is the first step towards a higher civilization. Keats has told us that

“A thing of beauty is a joy forever.”

and in the beautiful is comprehended also the good. What is called “refinement” is—like confidence in aged bosoms—a plant of slow growth, but there are degrees in refinement, and each degree carries with it its special appropriateness. The village maiden neatly dressed and with a simple flower in her hair is as much a queen in her particular sphere as the belle of the city ball-room dressed in satins and laces and decorated with jewels.

When, therefore, we talk of the improvements of the homestead we speak of such as are in consonance with the station of the family and with the daily life of its members. Gilt and gew-gaws are not adapted to the country, and any attempt to imitate there the fashions of the city would be altogether incongruous and out of place.

How then can an unattractive house already built be rendered attractive? That is the question. We answer by making such modifications in it as are indicated by a sense of fitness, and as will best adapt it alike to the circumstances and the uses of the family. There must be no gew-gaws inside; no florid ornamentation outside—only comfort, simplicity and rural grace. We know how general this explanation of our meaning is, and how difficult it is to illustrate our meaning fully without the use of drawings. This is especially the case in regard to houses already built, as any changes that we might suggest should be made in a house constructed on one plan might not suit a house constructed on another and a different plan. We can only, therefore, take the sort of farm house more commonly constructed as an example of what may be done for that and others of a similar kind. We suppose

then that the main building of this house forms a parallelogram—or, in other words, that it is broader than it is deep. We will also suppose that the kitchen and other offices form a prolongation of the main building in the rear, and occupy about half the width of the latter. In changing the external appearance of such a house the first modification must be that of the roof—for the roof in all houses is the dominating feature, and is capable of giving a distinctive character to the building. If the roof is flat and defective we should strip it off entirely, lengthen the rafters, and thus make the roof of a higher pitch. But if the roof is good, and close economy is to be consulted, we should simply lengthen the existing roof at the eaves and gables so as to extend it beyond the walls of the house from eighteen inches to two feet, according to the height of the upper front windows. If the breadth of the front will admit of it, a central gable thrown up will break the uniformity of the roof and front, and produce a fine effect.

The next thing to be done is to relieve the bareness of the windows with shutters and window hoods, carrying the latter sufficiently above the shutters to allow them to close easily. Bracket with simple cantilevers the overhanging roof all around—throw a plain porch across the front of the house, and color the whole with a warm neutral tint or in fawn color, painting the window hoods, the shutters, the cornices and pillars, &c., of the porch a pleasant brown. But this we will refer to more particularly when we take up the subject of color.

A WONDERFUL PLANT.—The *Victoria Regia*, in the Botanic Garden at Ghent, has thriven to an unprecedented degree during the past summer. Several leaves have attained a diameter of nine feet, and have supported a weight of two hundred and fifty pounds, and one even the enormous weight of five hundred pounds. Seven of the leaves completely cover the basin of 164 feet square. Every four or five days a fresh flower appeared, which lasted only two days, or rather two nights, opening in the morning of a perfectly white color, diffusing, about five or six p. m., a very powerful odor of vanilla, closing the next morning at eight or nine a. m., opening the same day towards evening, this time of a beautiful carmine, and finally closing the next morning.—The magnificent leaves last through summer, the plant begins to dwindle in October, and dies toward December. About this time the seeds, which have been obtained by artificial fecundation arrive at maturity. They are sown in January, and appear above the ground in about six weeks. Their infancy is very critical; but once past this period, the young plants grow with astonishing rapidity. The plants in the Ghent Botanic Gardens, unquestionably the finest that has ever been cultivated, arrived at its development in five months.

Our Agricultural Calendar.

Farm Work for April.

With the commencement of April everybody who is concerned in agricultural operations must go to work in earnest. It is of necessity the business month of the year. March has been cold and backward and the season for putting crops in the ground is rapidly passing away. The work of the spring is always pressing and demands to be pushed forward with vigor if the proper season for planting is not to be lost. Every day gained therefore at this time is of importance, and as the condition of the soil is usually favorable, the ploughs should be kept running until the earlier spring crops are in the ground and the preparations for the later ones are well forwarded. When it is the intention of the farmer to pitch a large corn crop, an adequate force to accomplish it as early as possible in May is almost imperative, as the seeding of the oat crop, and sometimes for barley also—though the latter is rarely seeded south of the Pennsylvania line—will certainly occupy much of the earlier part of the month.—There are also other duties to be performed which occupy time. There is clover and orchard grass to seed; there is early potatoes to plant; manure to cart out upon the corn ground, and the cattle, now beginning to loathe their winter food and pining for green grass, to be attended to. In brief, day in and day out there must be constant activity, constant forethought and close calculation of means to ends. The work for the month is as follows:

Seeding of Oats.

If it had been possible to put in oats last month it ought to have been done. But we fear the opportunities were rare in Maryland, although much may have been done in this respect for the South.—Taking for granted then that in many cases the oats are yet to be seeded, we can only urge that they be gotten in as early in April as possible; not a day should be lost. For all the details in relation to the preparation and culture of the oat we refer to the *Farmer* of last month.

Sowing Lucerne Seed.

The value of a field of lucerne when once it has become well established is unquestionably very great. It will yield successive cuttings from April to November for many years. But somehow or other those who have experimented in it have never followed up the culture of lucerne on a large scale, whilst very few of our regular farmers have cared to touch it at all. Nevertheless, to such as desire to test its qualities we offer the following suggestions:

As to Soil.—The soil for lucerne should be a deep, rich, sandy loam. Heavy or wet soils are not

adapted to it. Consideration also should be had to its protection during the winter months, and especially for the first two or three years. It should therefore be planted on a southern slope, or in situations well defended by a belt of woodland.

Preparation of the Soil.—Plough deep, harrow until the land is very fine, and be sure that it is made as free as possible from weeds, as lucerne when once well established will continue to flourish without reseeded for ten years.

Mode of Culture.—Sow in drills at a distance of a foot apart. After the plants come up weed them out, and keep the intervals between the rows clean and light with the hoe. This must be done throughout the whole of the first season. The following spring fill up all vacancies in the drills with plants from other places where they stand thickest. Keep down the weeds and lighten up the soil in early spring by running a harrow over it. Keep constantly down all weeds as they appear until the lucerne gets a fair start of them, and then there will be no further work required.

Time of Cutting.—Cut just as the flower is about to form. If the soil is rich and is kept light and loose with occasional stirrings of the harrow, the field will yield four cuttings each season.

Quantity of Seed to the Acre.—If drilled, which we advise, 15 pounds to the acre will be sufficient. If broadcasted, do not sow less than 20 pounds.

Sowing Clover Seed.

When the snow lies soft and heavy on the ground, clover seed, either alone or mixed with orchard grass, may be seeded on the snow. As the latter melts the seed will sink with it to the soil beneath and become incorporated with the latter. This is a good plan in the case of winter crops and when snow prevails. This season there has been no such opportunity. Clover seed should therefore be sown on winter grain at once, and on oats or barley as soon as they are put in.

Barley.

There is very little barley seeded south of Pennsylvania, yet the price for malting is such that it may be made, under favorable circumstances of soil and season, quite a profitable crop. The soil best adapted to barley is a rich, dry loam, inclining to sand rather than to clay. It is subject to fewer diseases than almost any other cereal, the main difficulty in harvesting being its tendency to break off at the head when fully ripe, and the trouble in threshing in getting rid of the beard. If the soil requires help either of the following mixtures will be found sufficient for an acre of barley:

No. 1. Ten 2-horse loads of marsh or woods' earth; five 2-horse loads of stable manure; one bushel of wood ashes. Compost the above for two

weeks, then mix, spread broadcast and plough in.

No. 2. 250 pounds of any of the better sort of commercial fertilizers. Those containing a certain percentage of potash in addition to ammonia and bone phosphate are to be preferred.

No. 3. 10 bushels of wood ashes; 10 bushels of ground bone; 1 bushel of salt; 1 bushel of plaster. Top-dress and harrow in.

Spring Wheat.

We cannot recommend the cultivation of spring wheat in this latitude, but those who desire to try it should get it into the ground at once, and sow at the rate of two bushels to the acre.

Hide Bound Meadows and Pastures.

Scarify these with a sharp harrow after top-dressing each acre with 10 bushels of wood ashes; 200 pounds of super-phosphate; 1 bushel of salt and 1 bushel of plaster, mixed well together before spreading.

Hauling Out Manure.

Manure intended for the corn ground should now be hauled out.

Early Potatoes.

All the necessary directions for planting early potatoes were given in the last number of the *Farmer*, which see. The crop may yet be put in for an early supply, but it should be done at once.

Sugar Beet and Mangold Wurtzel.

There are no better roots than these for the winter feeding of stock, and we therefore advise that a few acres should be planted wherever much stock is kept.

Soil.—Choose, if it be possible, a rich, deep loam for mangolds, inclining to clay. Sugar beets require a lighter soil and not too rich, as in rich soils the saccharine properties of the beet are lessened—still the land should not be very poor or the yield will be small. Wherever these roots require the aid of a fertilizer, the best for the purpose is 250 pounds of super-phosphate with the addition of from three to five bushels of salt. There is no root that is so much improved by a liberal application of salt as the beet.

Preparation of the Land.—Plough deep and harrow fine; next lay off the land in drills, from 27 to 30 inches apart, and one inch deep. Drop the seed thinly along the drills, cover lightly and roll all smooth.

After Culture.—Dust the young plants soon after they come up, and on moist mornings, with a mixture composed of equal parts of wood ashes and plaster. When the plants are about four inches high then thin them out so as to stand twelve inches apart in the rows. Vacant spaces should at the same time be filled up with plants drawn from where they stand thickly. Ten days later run th

cultivator along the intervals and hoe lightly the rows in which the plants stand. Keep the soil light and free of weeds throughout the growing season.

Quantity of Seed to the Acre.—Three pounds of seed to the acre is the proper quantity. Before sowing the seed should be steeped for 48 hours in lukewarm water to hasten germination, care being taken that the soil is not too dry at the time of planting.

Parsnips---Carrots.

The treatment of these roots is the same as for sugar beets, except that neither parsnips or carrots require salt. The quantity of seed to the acre should be about two pounds. The drills may be made from 18 inches to 2 feet apart, and about half an inch deep.

After Culture.—Same as for beets.

Time of Planting.—The earlier in April the better.

Top-Dressing Grass Lands.

"It is the practice of many farmers to top-dress their grass lands with composted manure as soon as they conveniently can after getting off the hay crop. It is a good practice. The manure protects the roots a little from the rays of the sun, and the first shower washes some of its nutritious properties into the soil and about the roots of the grass, so that they are stimulated to throw out new sets of leaves, which afford a still farther protection, both to plants and the manure. The surface is also sufficiently hard in summer to allow the teams to pass over it without cutting ruts, or being poached by the feet of the animals drawing the load.

We refer to this matter at this particular time in order to suggest to those who have grass lands newly laid down—that is, that have been mowed only one or two years—not to postpone the application of some sort of dressing, if they desire to continue cutting a remunerative crop for several years. The mistake made by most farmers is, in postponing the top-dressing too long. If clover is allowed to seed, and is then cut, the roots die, and there can be no farther crop from them. If the clover is cut while in blossom, there will be a second crop the same year, and perhaps two crops the succeeding year, if the land is rich. Red top and herds grass will continue longer than clover, but the roots of both of these gradually die out, or yield to stronger grasses, until the whole crop is changed from the sweet and nutritious grasses just named to the wiry 'June grass,' weeds or some other plants of little value.—All this comes from not top-dressing in season. If this were done, even though but slightly, after the first crop is cut, and afterwards, each year, the roots of the grasses sowed would be kept in a vigorous condition, and our mowing fields would not 'run out' as they do now. Under such a practice, moist and naturally good lands would yield a ton or a ton and a half of hay per acre for eight or ten years in succession, with more certainty than they now yield two-thirds that amount."

Garden Work for April.

Those who desire to have a good garden should now take time by the forelock. How much importance it is to have an abundance of vegetables in a family during the summer months is a point that we scarcely need to enlarge upon. A garden ought to be conspicuous alike for the neatness with which it is kept and for the variety and vigor of the crops that are grown in it. Gardening is in point of fact simply field culture on a small scale carried to the highest perfection, and if the same care and minute attention which are given to garden culture were possible in farm culture, an immense yield to the acre would be the result. The nearer, therefore, that farm culture approaches garden culture the more perfect it becomes. But it is said that what is called high farming will not pay, and so long as this opinion is entertained all that we can hope for is that farming as at present carried on shall be conducted with skill and intelligence, and in accordance with the best system in vogue.

But the little patch of ground called the garden should be kept in thorough order—not simply for the value of its products, but also as a household duty, and small fruits and flowers as well as vegetables should find a genial home within its precincts. The work to be done in the garden this month is as follows:

Sowing Cabbage Seed.—Where the plants have not been forwarded in a hot bed—which everybody in the country ought to have, as the frames are very cheaply constructed—cabbage seed may now be sown in the open air. Choose, if possible, a border with a southern exposure. Manure it well with the best rotten manure; dig the manure in deeply, rake fine and sow in drills the seeds of such cabbage as it may be thought most desirable to cultivate.—When the plants come up, water them occasionally in dry weather, and if they are troubled by the fly sprinkle over the bed a dusting of soot.

Setting Out Cabbage Plants.—If the plants in the hot bed—presuming that there is one—are sufficiently large, and by lifting the sashes occasionally are tempered to the open air, they may be planted out during this month. The soil to grow good cabbage should be made very rich, and those manures which furnish the largest proportion of ammonia are the best to apply. Choose a loamy soil; dig it carefully and deeply, and if the soil is rather moist than dry, so much the better. After raking the beds until all the clods are broken up, select a rainy or moist day, and set out the plants in rows, running north and south, 3 feet by 2½ apart. If the planting is done in dry weather, do it of an evening and water frequently after sunset until rain occurs.

Siberian Kale.—Prepare a bed early in the month and sow the seed of Siberian kale, for sprouts during the summer. A bed of 20 feet square will be found sufficient for a large family.

Early Peas.—Continue to drill in a few rows of peas at intervals of ten days throughout the month to secure a continuous supply.

Beans.—Plant dwarf beans, and follow up planting at intervals of ten days.

Lettuce.—Plant out lettuce plants from the cold frames for heading, and sow lettuce seed every ten days for a further supply.

Radishes.—Sow radish seed at intervals of a week throughout the month.

Spinach.—Drill in a few rows of spinach seed.

Carrots and Parsnips.—Sow carrot and parsnip seed for a winter supply. For mode of culture see Farm Work elsewhere.

Beets.—Drill in beets for the general crop. See remarks on the culture in Farm Work.

Sowing Onion Seed.—Onions of good size may be grown the same season from the seed, if the seed be sown in rich and well prepared ground during the early part of April.

Celery.—If celery plants have been raised in a hot bed they may now be pricked out into a nursery bed three inches apart, where they are to remain for the space of five weeks. Water frequently.

Sowing Celery Seed.—Prepare a bed about the middle of the month and sow celery seed.

Salsify or Vegetable Oyster.—Drill in a few rows of this remarkably excellent and palatable root.—The soil best suited to its culture is a sandy loam. It should be rich, deeply dug and completely pulverized. Draw the drills ten inches apart and one inch deep. Drill in the seed thickly, as many of them will not germinate. Cover it with the back of the rake, and press down the earth firmly. The after culture is precisely the same as that required for carrots, parsnips and beets.

Parsley, Thyme, Sage, &c.—Seeds of all these herbs may be sown during the early part of this month.

Rhubarb or Pie Plant.—Prepare a border having a southern exposure; make the soil fine and rich, and sow seeds of the rhubarb or pie plant.

Early Potatoes.—The planting of potatoes for early use cannot be deferred later than the first week of April. If the season had been propitious they might have been planted a month ago.

Small Salading.—Sow seeds of small salading at intervals of a week throughout the month.

Nasturtium.—Drill in nasturtium seeds for pickles.

Red Pepper.—Early in the month prepare a bed for red peppers and sow the seeds.

Tomatoes and Egg Plants.—These should be for-

warded in a hot bed. An early supply can only be derived from that source.

Melons.—Towards the close of the month prepare the hills for the reception of melons. A bushel of well rotted manure—hog manure is the best—will be required for each hill where the ground is poor. The soil best adapted to melons is a light, sandy loam. The distance of the hills apart should be six feet.

Strawberry Beds.—Keep the strawberry beds free of weeds, watering them frequently during dry weather. Even when in blossom the plants may be watered during dry weather, provided it is done after sunset. The best top-dressing for strawberries is woods' earth. None other is equal to it.

Shrubbery.—All kinds of shrubbery may be planted out during the early part of the month; but towards the close many horticulturists consider to be the best time for transplanting evergreens.

Grape Vines.—In this latitude, in ordinary seasons, grape vines may still be planted out during the early part of the month.

BONES AND ASHES.—Bones and ashes pass through the housekeeper's hands every day. Wood is still the chief fuel in the farm house, and the value of the ashes is pretty well understood. They are prized for the lye they yield, and if there is a surplus from the soap-making, they help the kitchen garden at the back door. The bones are generally thrown to the dog and lost. Now, if the careful housewife would save the bones as regularly as the ashes, she would practice a wiser economy, and help her kitchen garden twice as fast. Bones are worth twice as much as ashes for manure, if dissolved, and the ashes will reduce them. Put both into a barrel in the cellar, if you please, and after mixing them half and half, keep them constantly moist with soapsuds—the hotter the better. The suds should not be poured on in such quantities as to leach the ashes. In a few months the bones will be disintegrated, and the whole mass may then be mixed and will make an excellent fertilizer for the flower border or the kitchen garden.

MILK.—"If you desire to get a large yield of milk, give your cow, three times a day, water slightly salted, in which bran has been stirred at the rate of one quart to two gallons of water. You will find that your cow will gain twenty-five per cent. immediately under the effects of it, and she will become so attached to the diet as to refuse to drink clear water unless very thirsty, but this mess she will drink almost at any time, and ask for more. The amount of this drink is an ordinary water pailful at each time, morning, noon and night. Your animal will then do her best at discounting the lacteal."

STALL-FEEDING STOCK.

We give below, from an esteemed correspondent, an article on the stall-feeding of stock. Our correspondent is evidently an enthusiast on the subject and has pretty much exhausted all the arguments that may be advanced in its favor. Nevertheless it is a matter of real importance and is eminently deserving the consideration of practical farmers. We think, however, that whilst stall-feeding is decidedly the best under certain conditions and circumstances, there are instances in which it could not be carried out to advantage. It may be said in return that such exceptions ought not to operate in disfavor of stall-feeding as an economical mode of keeping and managing stock generally. This also may be quite true; but, whilst we concur in the conclusion of our correspondent in many respects, we think a further ventilation of the subject is desirable, and shall seize the first opportunity we have to take our part in the discussion.—[Eds. *Maryland Farmer*.

To the Editors of the Maryland Farmer:

Can we abandon the troublesome fences and stall-feed our stock? or is it better and cheaper to keep up fences and let the stock run at large?

These questions now agitate the public mind in all parts of the country, and the final decision that shall be reached is big with much that must decide the future progress and prosperity of agriculture. All have opinions, and both sides should be heard and listened to with kindness and conciliation. If the public mind shall at last decide to continue the fences, I for one will peacefully and quietly yield to the public will. And, on the other hand, should it be found best to keep up stock—as I think will be the case—no word from the one party should be spoken that might seem to reflect upon the judgment or wound the feelings of the other. The matter should first be talked over in public and in private, and our agricultural papers should give the subject a thorough ventilation. As a farmer I am interested, as the decision will affect me pecuniarily. I believe it to be—from actual experience and calculation—much the better and cheaper plan to stall-feed all our stock; and for the benefit of my brother farmers I will state some reasons why I think so.

1st. You have them at all times under your eye and at your command; 2d, you lose none by straying; 3d, you lose none by thieves; 4th, you lose none by accidents, as getting in the mire, being run over by the cars, or by falling trees; 5th, you can doctor in case any fall sick, which you could not do if they were running at large; 6th, you can separate the vicious and quarrelsome from the weak and gentle; 7th, you can prevent them from crossing with inferior stock—this consideration is worth almost the entire cost of stalls; 8th, when you want a

veal or mutton you have not to take an indefinite and prolonged hunt for it—thus you save your time, which is money; your patience, which is a cardinal virtue, and your clothes from being torn by rambling among bushes and thorns; 9th, you save ALL the manure for your crops—this item alone, if you know how to manage manure, will *twice pay* every cost of stall-feeding stock; 10th, wild animals will soon become gentle; 11th, they will not be annoyed by ticks and flies, (if the animals themselves had a vote this item would go far in deciding them for the stalls;) 12th, you can have them drop their young at any time you may wish—this will avoid the loss of many dollars every year; 13th, milch cows are always at hand at the time for milking; 14th, if you wish to sell any they are ready at hand; 15th, no quarrels between neighbors can occur for stock trespassing upon the crops—the preventing of quarrels among neighbors, often bosom friends, as it were, is worth *all the cost* of stall-feeding stock; 16th, there is no danger of having any killed by dogs—this will also prevent quarrels; 17th, sheep are ready at hand at shearing time; 18th, the better attention you would bestow upon them would make them less liable to disease; 19th, there would be no danger from mad bulls upon the public highway; 20th, my better-half suggests that the milk and butter would be very much improved by stall-feeding, as “many sorts of birds ruin the milk;” 21st, the quantity of milk and butter would be much increased; 22d, there would be no need for disfiguring the animals by ear-marks; 23d, an improved and far more profitable stock would soon result from the good attention necessary to a profitable system of stall-feeding; 24th, and the strongest reason of all, there would be *no need of fences*. Our fields would not have to be enclosed by the old, unsightly, costly and troublesome fence. Thus the time necessarily spent in building and mending fences would be saved for other and more needed work, the cost of building would be avoided, and much valuable timber would be saved for other purposes. Who can estimate the cost devolved upon the nation by the use of fences? It is believed that each farmer might build good comfortable stalls for all his stock, or for as many as his means would render safe to keep, for the annual expense of mending fences upon his farm; and the original cost of the fences would feed the same for ten years.

Here, then, is a system of managing stock much the best and more convenient every way, and that affords at least two reasons where such a system would many times cover all costs of such a system; and yet, strange to say, men will not heed, but blindly follow on in the old beaten track, content to live and struggle and die as their fathers did, unmindful of the costs. Why is it that men will thus

act? It seems to me that here are good and sufficient reasons to convince even the most sceptical that stall-feeding all kinds of stock is decidedly the best every way; and I fain believe that when the matter comes to be viewed in its true light, with all these reasons to bear upon it, that a mighty rush will be made by farmers everywhere to the fences, with fire in hand, determined upon a speedy removal of this unsightly blot upon their judgment. In the meantime let us talk over the matter and calmly and impartially weigh each item. If any one feels disposed to take up the other side let him do so. If any one can show two dozen as good reasons for continuing the fences then I have no more to say in favor of stall-feeding stock.

It is proper, in this connection, that something should be said about the construction of stalls and yards for stock, the proper and economical management of manure, food, attention, &c., &c., but this must be deferred for the present.

I would say to any, however, that may be convinced of the utility of stall-feeding, but who have not yet begun the practice, to set about arranging matters with a view to starting in the fall. It will be necessary to shelter and feed during the winter, and with a little more care things may be arranged for continuing thereafter in the practice of this plan. Make more oats, hay, corn, barley, and roots for use upon your farm; and when stern winter comes around again and you are so fortunate as to get your stock at home once more, *keep them there*. Turn over a new leaf in your stock-book and write there "stock all at home, and so long as I am able to keep any *they shall stay*." And having done this, set earnestly about your task and go steadily on to the end, where a rich reward awaits you—which is COMPETENCY.

B. W. JONES.

COTTAGE HOME, SURRY, Va.

SEEDING WITH CORN FODDER.—I want to seed my land to grass as soon after manuring as possible. Would it do to seed at the time of sowing fodder corn? Or, would the fodder, by overshadowing, destroy the grass seed? I use sweet corn for fodder.

J. S. P.

[Grass seed does best and grows most rapidly when sown *alone* at the proper season—next best, with such grain as shades it best, and the thinner this grain the better the success with the grass, other things being equal. Lastly, its success is least probable when sown with crops which make a heavy shade, as corn fodder. The corn fodder, to do well, should be sowed in thick furrows or rows, and be cultivated afterwards with a horse two or three times. The grass seeding would prevent this. We cannot recommend sowing corn broadcast in any case, as it does not give so good a crop, nor leave the land in good condition.]—*Cour. rj Gentleman*.

SPECIALITIES VS. MIXED CROPS IN FARMING.

To the Editors of the Maryland Farmer:

The tendency of most industries in this fast age is, and for many years past has been, to specialities; and especially has it been the case in farming, or the production of tobacco, cotton, wheat, corn, &c. Some one of these crops is selected, and the whole energies of the farmer, with his available resources, are directed towards its production, without reference to any other production or natural wants and necessities of the farm or life.

Without doubt greater excellence and perfection may be arrived at with the handling of such crops, in this mode, than would naturally be the case were the mind and forces directed to a more diversified industry; but that the producer finds it as profitable, or that he is enabled to lead as independent life, is found not to be a fact. Many reasons might be adduced why a diversified industry will be found the wisest and most profitable for farmers in all sections, but the following from the Monthly Report of the Department of Agriculture for January 1870 will as fully illustrate the case as volumes of theory. The case is of Calvin C. Jones, of Wetumpka, Ala., a man with a large family of small children, as remarked by the editor.

"I will now give you the history of my proceedings from the surrender to the present time. At the surrender I had ninety dollars in hard money.—There were ten of us in family—myself, wife, and eight children. I had no provisions, but had two horses and one hundred and sixty acres of poor pine land—plantation gone down. I went to work for what we could eat, as it was too late in the year to try to make a crop. The 1st of January, 1866, I went to work to make a crop. I took my hard money and bought provisions with it, and planted all my land, about fifty acres, in corn and peas.—My neighbors wanted to know why I did not plant cotton, they said they could raise cotton enough on one acre to buy as much as would grow on five. I told them that the first thing with me was something to eat and then I would raise some cotton. It proved to be a bad crop year, but I raised corn and peas enough to make my meat, and to do me for the year 1867. I then planted about half my land in cotton and the balance in corn and peas. I made five bales of cotton, and corn and peas and meat enough to do me for the year 1868. I then sold my poor land for \$600, in three payments, and bought a plantation on the Coosa River, ten miles above Wetumpka, for which I promised \$2000, in two payments. I and my children went to work; myself, and one son big enough to plow, and four small ones not large enough to plow, were my force. We made 400 bushels of corn, and \$1400 worth of

cotton. I had corn, peas and meat to do me for the year 1869. My eldest son quit me and went to work for himself, I had one above eleven years of age and put him to the plow, and we have this year made $11\frac{1}{2}$ bales of cotton, 300 bushels of corn, 300 bushels of oats, 55 bushels of wheat, and some potatoes, and 1600 pounds of pork. During the last five years I have lost four head of horses; still I have not bonded any cotton. My neighbors that went to making cotton to buy corn and meat with are still at it, and they are just one year behind. They have to sell there cotton before they make it at ten or twelve cents per pound, in order to buy meat and bread, and just as long as men pursue that course they will always be behind. I have not worked any freedmen at all, and I think I came out best, for those who do work them in this neighborhood generally come out losers, with difficulties and lawsuits. During the five years since the surrender I have not used any manures, as my means have been limited. If everybody, both white and black, would go to raising their own corn and meat at home we would be a happy people."

This is the experience of one man—a "plucky" man—who went to work in the right way; he not only commenced by growing the necessities of life in order that he might be able to grow other and larger products, but *he did his own work, and worked within his means*, which is the only sure means of advancing in agriculture.

There are some points that we might point out wherein improvements might be suggested; for instance, a judicious investment in increasing and supplementing farm manure would have been advisable, from our own standpoint, but perhaps a more intimate knowledge of circumstances would give a different light. If the land was reduced to the amount of the value produced there was little profit. This point of avoiding the "running" of the soil is one of the greatest points in good and profitable farming.

GIARDINIERE.

DUCK RAISING.—Less is known about the diseases of ducks than of other fowls. They are, in our experience, best hatched by hens and kept in a dry pen for several weeks. Give plenty of grass, frequently renewed, keep water always before them in the shallow vessels, and feed often. A pen of boards a foot high, covered with laths nailed across the top, with one corner or one end covered, to exclude the rain, is all sufficient. This pen should be frequently shifted upon dry, grassy ground. If one is noticed moping, swelled up, or out of sorts in any way, give soaked bread and milk, red with cayenne pepper. The best are Rouens, Aylesbury and Cayuga Blacks. Points of excellence for common purposes are size and number of eggs.—*Exchange.*

SWEET POTATO CULTURE.

To the Editors of the Maryland Farmer :

I have been requested by some of your readers of the "*Maryland Farmer*" to give through its columns a description of my system of Sweet Potato Culture, as I have been quite successful of growing sweet potatoes, and of keeping them for winter sales. I believe there are many others more capable of giving information on the subject than I am, yet in answer to the call, I am willing to offer the following remarks, which are at your disposal. As this request was made partly on behalf of Virginia readers, I will say that I have understood there is land in that section suitable for growing large crops of sweet potatoes, year after year. In New Jersey, we grow them upon our lightest soils, usually such as are too sandy for white potatoes or good corn :

Preparation of Plants.

First, I select the best medium size potato to be found, those that have been carefully wintered and not chilled. Second, The hot-bed should be ready April 10th or 15th, which should have a warm exposure, be protected from cold winds. I take fresh short stable manure the first week in April and throw it up in a square pile, and let it heat about one week, then turn the pile outside in and let it stand a few days, it is then ready to go into the bed; make the bed about 18 inches deep at the lower side and two feet at the upper. An acre of ground takes one barrel of seed, which will take five sashes, three feet by six, or a bed six by fifteen feet to sprout them. The manure in the bed should be fifteen inches deep, well beaten with the fork, but not trampled, and two inches of dry sand put on before the potatoes go in, after which carefully placing the seed and not allowing them to touch one another, cover with dry sand two inches deep and keep warm, exposing to sun in mild pleasant weather. Some growers cover with fine hay, and over all, boards to shed entirely all rains. I prefer hot-bed sash instead of boards, for under glass the bed will seldom get too warm. If care is taken that the manure is well burned before it is put in the bed, so that the heat will be mild, there is no danger of rotting. The potatoes always rot when there is too much heat or no heat at all. Keep the bed moist but not muddy or wet; keep the sash on in cold or wet weather. By May 10th or 15th, the ground should be in readiness to transplant. I find sprouts two inches long the best, that is two inches of white, and let them have about three of green, making five inches in all. I plant them four inches deep in the hill, and if cut off near the top of the ground by the frost or cut worm they will still come. I think much depends on the sprouts being good, poor plants will not grow good potatoes. In pulling off the plants, select the

strong ones first, and the others will soon become strong in a few days, I run one finger down among the sprouts to the potato, to keep it from pulling up with the sprouts.

Field Culture.

First, I grow sweet potatoes upon my lightest soil, moderately rich naturally, or made so with manure. On such soil I have two plans of field culture, I will offer both as I have met with the best success after the following plans: In the month of April I sprinkle broadcast over the ground sal-ammonia and lime, two of the latter to one of the former, in powder, as you would plaster, but in less quantity, then plough down, taking care not to sprinkle too far a head of the plow. After thus having turned it under, I cover the whole ground with a light coat of plaster, and let it remain until the time I want to plant, which is about the 10th or 15th of May, when I prepare the ground by passing a cultivator over it; then take a plow and mark the ground three feet both ways, straight and true, which makes the hills three feet square, thus giving 4,840 hills to the acre, and I have had them to yield a bushel from 20 hills or thus 242 bushels of potatoes to the acre, which is not considered uncommon for them to yield when they do well.

Composting.

I prepare as soon in the spring as I can a compost of horse, sheep, and short barnyard manure—for sweet potatoes require a rotted manure. This mixture compost is thoroughly incorporated with one-fourth of its bulk in green sand marl. About a half-shovelfull of this well rotted compost is put where the rows cross each other, and a hill made with the hoe a foot high and to run to a point; put one plant in a hill. When the weeds begin to grow, which is about the middle of June, I run the cultivator through both ways. It cleans the middle between the rows and the bottom of the hill thoroughly; I then follow with iron tooth rake, the teeth is about three inches long (the same as a garden rake,) to loosen the top of the hill around plant, then with the hoes and scrape off the weeds on the remainder of the hill. In about three days I run the plow through both ways, follow after with the hoes and hoe the hill up smooth. The plants by this time have started six or eight inches. In about two weeks, or the first week of July, the vines begin to cover the hill, I then go along with the hoe and lifting the vines with the hand, clean off all the weeds that may show themselves, and leave the hill and vines clean and smooth. In about two weeks, or Aug. 1st, I then carefully turn the vines, and plow and hoe, replacing vines. In about two weeks, or the middle of August, I go through again and pull the vines loose, to prevent their taking root. If this is well

done and all the weeds that show themselves are pulled out, they will want nothing more until digging time.

Digging and Harvesting.

Digging should be commenced before any frost, providing it be desirable to preserve for winter sales or use. I dig as follows: First cutting the vines close to the hill, with a knife or sickle, then dig deep around the hill, (the hoe is 12 inches long by 5 inches broad;) after digging around the hill lift the potatoes by one hand around the vines, while the other lifts them out with the hoe to the top of the ground, carefully shaking from the vines, as they will not bear a rough handling as white potatoes, and a little bruise will be sufficient to cause them to rot; they should be allowed to lie until perfectly dry, then if for immediate marketing, baskets are the most suitable; if for winter sales, barrels or boxes to hold the same quantity should be used, for if packed away in larger quantities they will not keep as well.

Another Plan of Field Culture.

I will give my other plan of management as follows: On my lightest sandy soil, I plow the ground shallow about the last week in April or the first of May, then put on a good coat of equal parts of marl and leached ashes—(the ashes I get at the soap factory's and the marl I have upon my farm,) which is spread over the ground evenly, and I let it remain until the time just before I want to plant, which is about the 10th or 15th of May, when I prepare the ground by passing a harrow over it, then take a plow and strike the furrows three feet and a half apart in rows; horse, sheep, and barnyard manure, with one-fourth its bulk marl, made into a compost and well rotted, is put in the rows and spread along evenly, after which two furrows are thrown upon it, and the plants set fifteen or twenty inches apart in the row, being careful only to prepare as much ground as will be needed for the first setting, as the plants after being taken from the beds, delight in fresh soil, and the damp earth, which of course it must be, or the plants will wither and die the same as other plants set in dry earth. After the plants have become well rooted, I run through with cultivator and level the ground, after which they will begin to thrive finely, and the hot beds be again ready to be thinned out. Then the plow and hoe is brought into requisition, and the field or patch kept thoroughly cleaned, carefully turning vines during plowing, and replacing. I have cultivated sweet potatoes largely after this plan and with good success, it is not quite so satisfactory to perform on soil moderately rich, where weeds are hard to keep down. I therefore practice both plans. In this the potatoes being in straight furrows, a distance of 3½

feet apart, makes the space between the rows wide enough to plow out the potatoes. First, cutting the vines close to the hill, with two horses, plow deep and throw out on top of the ground, then carefully shaking from the vines, they should be allowed to lie until perfectly dry, before put away for winter use. It is very desirable to have the sweet potato crop mature as early in the fall as possible, as they are better and more sure to keep well, and of special importance to dig and harvest them before any frost wilts the vines to preserve for winter keeping.

Keeping Sweet Potatoes.

Some growers have declared that sweet potatoes keep just as well without putting them in dry leaves, shaving, chaff, &c., but my experience will differ from theirs. I have found to put them in dry leaves, shavings, or rotten wood, finely pulverized—the latter I believe is the best, and most difficult to obtain; yet any of these materials mixed in with the potatoes in barrels or boxes with care, the saving profit from shrinkage in the spring will be at least 15 per cent., paying well for the trouble of mixing some of the materials I have mentioned with the potatoes.

Last summer I collected rotten wood, had it pounded or ground fine, which I kept in a perfectly dry state to pack my sweet potatoes in. I put a portion of them in it, and I believe it to be the best thing yet to preserve from shrinkage.

My sweet potato house is built of brick, 25 by 30 feet, and will accommodate about 5,000 bushels of potatoes. A cellar is under it; a stove is placed in it, and the fire is kept hot enough to keep temperature; where the pipe comes up through the house into a flue, going out through the roof. A fire is made in the stove as soon as a day's digging of potatoes have been packed away, to drive away the dampness caused by their sweating, and is moderately kept up until cold weather sets in, then the fire is regularly made at 5 A. M. and kept up with greater or less activity until 10 o'clock P. M., when the fireman retires to rest; if it is very cold, he made an extra fire on retiring to bed. The temperature of the room is kept between 55° and 65°, and not allowed to go below 50°.

My sweet potato crop the past season of 1869 fell short, owing to a drought in this section in August. Formerly I have harvested 2,000 barrels; this last season or year 1860, a part I have on hand as yet.

B. WILLIAMS.

WILLIAMS FORD, NEW JERSEY, MARCH 1870.

If you are a wise man you will treat the world as the moon treats it. Show it only one side of yourself, seldom show yourself too much at a time, and let what you show be calm, cool and polished. But look at every side of the world.

Culture of the Castor Oil Bean.

Mode of Culture.—Break up the land with a plough, and lay it off in rows six feet apart each. The best time to plant, is from the middle of April to the second week in May. Drop three seeds in each hill. Half a bushel of seed will plant ten acres. Treat the plant in the same manner as corn. Be careful in looking after the cut worm, which gives it the preference to corn. When the plants are six inches high, they should be thinned to one stalk in a hill. New lands broken up the same season, are not suited. One hand can tend five acres. In a good dry soil, the yield will be from fifteen to twenty bushels per acre, each bushel yielding seven quarts of pure oil.

Gathering the Seed.—About the middle of August the seeds begin to ripen, and will continue until checked by the frost. Previous to the ripening of the seeds, the yard for spreading them on should be prepared. It should be made on ground of a gradual descent, open to the sun, and made very smooth and firm. The first and second parcels that ripen, must stand till the pods on the ear begin to crack—otherwise, a part of the bean will be imperfect. Later in the season, when the stalk is more mature, they must be cut when two or three pods begin to open, or they will waste. They are laid in the yard one ear deep. In warm weather, a layer will pop out in three days. When all are opened, the stems are raked off. The hulls are swept off with a broom made of naked switches; which if carefully done, will not leave more than one bushel of hulls in eight of beans. They may be cleaned with a common wheat fan, with a riddle suited to the size of the bean.

Mode of Extraction.—The oil is obtained both by coction and expression. The former method is performed by tying up the seeds, previously broken and bruised, in a bag which is suspended in boiling water, till the oil is extracted and rises to the surface, when it is skimmed off. This is the usual mode adopted by farmers. The smallest quantity of water, however, remaining in the oil, causes it to become rancid. The "cold expressed oil" is preferable, and will continue pure for a long time. The process is easy and simple. The screw and lever, used in bailing cotton, will express the oil from the beans. The capsules, or unopened beans, are to be moderately heated in a furnace, not so hot as to be distressing to the naked hand. Under the screw is fixed a strong iron cylinder, into which the beans are put and covered with an iron follower, of diameter proportioned to the cylinder. The oil is now fit for use." —*Southern Cultivator.*

If you cannot do as well as you wish, do as well as you can.

VEGETABLES AS USEFUL DISINFECTANTS AND ANTI-MIASMATIC.

During the last few years the great prevalence of miasma of various kinds emanating from the lowlands of the Netherlands, has attracted the attention of the most celebrated of the Dutch chemists, and especially of those who are thoroughly conversant with physiological and pathological chemistry.—This evil has been at times so great that the Government of Belgium at last had recourse to official steps to correct it, and in doing so, offered large inducements to any one who would suggest the most reliable antidote. A Mynheer Van Alsten, who resided in one of these miasmatic districts, upon a large swampy tract which he had inherited, had for some time observed that the common sunflower, the *helianthus annuus* of botanists, had invariably flourished the most, and produced the largest flowers, and the greatest number of seeds, upon the soil and in the districts which seemed to engender the miasmatic fever to the greatest degree. He has planted them in those districts to a considerable extent, and has found that they are a complete antidote for miasmatic poison. They seem to derive their support more from the atmosphere than from the soil. The seeds are excellent food for domestic fowls, the oil contained in the seeds may easily be obtained by the common modes of expression, and the stalks, when dried, make a useful and profitable fuel. The pith of the stalk has been proposed in France, by M. Percy, for the preparation of the article called *moza*, which is now extensively used in medicine for the purpose of scarifying the skin or flesh in place of caustic potash or nitrate of silver. Moxa is burnt, and while in a state of combustion, is applied to the skin or flesh for various purposes, where such a course of treatment is indicated. The sunflower pith is well adapted for this purpose on account of the great amount of nitrate of potash which it contains, and which enables it to burn without insufflation. The stem of the sunflower, when the seeds are perfectly ripe, and consequently the plant has come to perfect maturity, is cut into transverse sections of less than an inch in thickness, and denuded of the fibrous portions constituting the stalk. The pith is then carefully dried at a gentle heat, either in a close apartment or by the heat of the sun, and afterwards kept in a perfectly dry place. A variety of the same plant, the *helianthus tuberosus*, or *Jerusalem artichoke* may be used for an anti-miasmatic in the place of the first-named variety, though the stalk, leaf and flower are not so large, and consequently have not the absorbent power in so great a degree; but they have an additional merit in their roots or tubers, which may be pickled and thus used as a rich, and to many a very delicious condiment, and are also

useful for feeding stock. Neither of these varieties need any care in their cultivation, the latter not even needing to be planted from year to year.

It is not only in the Netherlands where the necessity of anti-miasmatic plants or other agents exists; there are many thousands acres of land in New Jersey, Long Island and elsewhere, within comparatively a few miles of New York, where no human being can reside with impunity, on account of the poisonous miasma which constantly emanates from the damp soil. Many acres have been redeemed in New Jersey from the incursions of the tide, but they are still uninhabitable on account of the state of the soil and atmosphere. We hope, therefore, that scientific men and others, will duly investigate this important subject, and, by their experiments, either confirm or refute the statements of our learned foreign neighbors on this subject.—*Journal of Applied Chemistry.*

Fish and Muck Compost.

BY AN OLD SEED GROWER.

To prepare fish and muck compost, commence with three shovels of swamp muck, and spread it on the ground in a circle, if for a small heap of a few barrels of fish pomace, or in a long heap for a large quantity; then beat the fish fine and scatter one shovelful over the muck, and so continue alternately until all is mixed, leaving the heap cone-shaped. In about a week the heap will begin to heat, and should be turned and mixed, commencing at one side and making all fine with the back of the shovel. In a week or ten days more, it should be turned again. In three weeks it will be fine and, fit for use. It may be kept until wanted to be used, but will require further turning if it continues to heat. The muck should be damp when mixed, or it will not heat sufficiently. Peruvian guano and muck, or earth, should be mixed in the proportion of six to one of guano. It does not heat, but requires the same turning and mixing as fish and muck. A handful of either in the hill is about the quantity generally used, but of the fish compost, more is required than of the guano—as much as can be held in the hand with the palm uppermost and the fingers spread. If thrown into the hole in a heap, it should be spread before being covered, to avoid the danger of destroying the seed, which never should be planted directly upon it.—*Amer. Agriculturist.*

To mingle the useful with the beautiful, is the highest style of art. The one adds grace, the other value.

WEAR your learning like a watch, in a private pocket, and don't endeavor to show it unless you are asked what o'clock it is.

HOW MUCH GRASS SEED TO SOW PER ACRE.

As the number of pounds in a bushel of seed varies in different States, I shall designate the amount to be sowed by quarts, instead of pounds, there being thirty-two quarts in a bushel in every State. No man can lay down a rule which will indicate the most proper quantity to be sowed in all places, and on all kinds of soil in different conditions. Grass seed of some kinds *may* be sowed too thickly, although this is seldom done. Red clover may be sowed too thick for producing a good yield of seed, as there will only be about so many spears of grass flourish, even when the seed is sowed in great abundance.—When the seed is applied so abundantly that there is not room for a spear to grow from every kernel, a portion of the young grass dies, the strongest spears overpowering the feebler ones, and maintaining the pre-eminence over them.

When the country was first settled, our fathers said four quarts of timothy seed was enough for one acre. If the soil is in fine tilth, four quarts is sufficient to seed one acre, *well*, if the seed be sowed evenly. Unless it is desirable to raise a certain kind of seed, land should not be stocked down with only one kind of seed. If the soil be in good state of fertility, and seed be sown too thin, some kinds of grass will tiller, and cover the ground tolerably well. Seed should always be sown thicker for pasture, than is necessary for meadow, whether it is to be cut for seed or hay. If the soil is rather lumpy, and not very fertile, twice as much seed is necessary per acre, as will be needful, when the surface is mellow, free from lumps and covered with a fine, vegetable mold. A farmer must learn to exercise sound judgment on this subject without specific directions from books. However, I will state the proper quantity for general seeding, which may be varied to suit the quality of the soil, or for meadows and pastures.

Three quarts of timothy, sixteen of orchard-grass, and twelve of Kentucky blue grass will seed any acre of ground well.

When early red clover and orchard-grass are sowed together, four quarts of the former and sixteen of the latter will be sufficient, if the soil is not too poor to produce one and a half tons of hay per acre.

When it is desirable to sow nothing but red clover, either early or late, six to eight quarts per acre will seed the ground well, if sowed evenly.

When orchard-grass only is sowed, not less than two bushels will be found sufficient for one acre, as the seeds are large. Better sow three bushels per acre, than less than two.

Kentucky blue grass seed being bulky, and the plants inclined to spread rapidly, one and a half

bushel per acre will be found sufficient, if the soil is mellow, and in a good state of fertility.

Hungarian grass being disposed to grow coarse when the seed is sowed thin, and firm when sowed thick, when no other seed is mingled with it, not less than half a bushel should be sowed per acre. And one bushel will give better satisfaction.—S. E. T., in *Working Farmer*.

BOOK FARMING.

There are yet a few of the "old school" farmers who have a prejudice against reading, or, as they call it, "book farming;" but I believe the time has passed when it is doubted that intelligence and research produce beneficial and profitable results upon any subject to which they are applied; nor is agriculture so poor as to furnish an exception to this rule.

Webster, when speaking of the importance of agriculture, said: "Agriculture feeds us, to a great extent clothes us, and without it we could not have manufactures, and we should have no commerce; these all stand together, but they stand like pillars—the largest in the centre—and that largest is agriculture."

But, although we know that no man can be made a good farmer by a book, we cannot admit that the best farmer cannot, may not, sometimes find useful hints in a book.

The best farmer cannot know every article of practice that is followed in every part of the country; and as most practices are discovered by what is called chance or accident, it is clear the discovery cannot be generally known until it is carried abroad.

A farmer who travels appreciates the information which he receives in conversation with other farmers, and by observation of field labor.

Such a farmer possesses advantages over him who always remains at home, that is within the circle of his markets.

Now, the object of an agricultural book or paper, at stated times, is to carry hints, suggestions or discoveries, important or unimportant, to the home of the farmer, that he who stays at home may possess all the advantages of him who goes abroad; and that he who goes abroad may compare what he has seen with what he reads, and decide which practice is best suited to his particular purpose; or perhaps, when comparing the hints of others with his own knowledge, he may discover new plans superior to both.

In this manner a good agricultural journal is the means of disseminating throughout the country practices which otherwise would have been confined to the section where they first obtained. If a farmer wishes a good agricultural paper he should support it by writing for it, and thus assisting to make it good.—*Cor. Germantown Telegraph*.

The Dairy.

THE STRIPPINGS.

What are "the strippings?" Probably about one-half of the people in the country, and a large share of those brought up in cities, if they were to choose milk as drawn from the cow, would take that which is milked first. We were looking over a somewhat noted dairy recently, while the hands were milking. In this particular dairy, it is customary to save "the strippings" by themselves, keeping them separate for a special purpose. While one of the milkers was drawing the stripping, a very intelligent gentleman visiting the house, came out with a cup to get a drink of warm milk. Following the milker to the dairy where the milk was to be strained in pans, our visitor was invited to hold his cup under the strainer of "the strippings." "No," said he; "I do not care to take the dregs; I want the best and the richest milk, and will take that which was drawn first, in the other pail." When the milk-maid told him the strippings, or last drawn milk, was nearly all cream, and that it was set apart for making choice butter, he manifested the greatest surprise, and said the thing was entirely new to him. A vast many people are no wiser. Now, cream being lighter than milk, the denser or heavier portion of the milk is drawn first from the udder; while the lighter parts, rich in butter, remain back, and make up what is known among dairymen as "the strippings." It will be seen, then, how important it is that the last drop of milk in the udder should be drawn while milking; and that when particular attention is not given to this point, the loss is much more serious than a waste of the same quantity of the first drawn milk; for the one is thin cream, while the other is nothing more than plain milk.

There is another loss, of course, in not milking clean, as it has a tendency to dry up the cow, or lessen the secretion of milk from day to day. It is very difficult to impress milkers with the importance of drawing the strippings from the udder. Many milkers are in the habit of finishing their work just as soon as the free flow of milk ceases. Such milkers, it is needless to say, entail a heavy loss on the dairyman, in the course of the year, and if they milk many cows, they waste more than their wages. At this season of the year particular attention should be given to the strippings, especially in those cows which are not immediately to be dried off. The strippings make a very nice quality of butter, and some butter-makers think it pays well to keep them separate from the first drawn milk, setting in pans separately for choice butter. It is a little more trouble

to the milker, perhaps, to separate the strippings, as it necessitates having a "stripping pail," but there is no doubt that it educates milkers to *milk clean*, if of no other advantage.

In conclusion, we say, be careful and secure the strippings; and as the subject seems naturally connected with butter-making, perhaps the following method of preserving butter, recommended by Mr. E. P. Wright, of Green Co., N. Y., may be useful to butter makers. It is as follows:

"Procure good white oak firkins that are perfectly brine-tight; take out the head, first making a small hole, say a quarter of an inch in size; then fill it with cold water; let it stand twenty-four hours before you are ready to use it; then rub, while wet, thoroughly with fine salt; fill your firkin as soon as possible. Your firkin should be of such a size that one can readily be filled in a week or ten days with sweet butter to within half an inch of the head; then place over it a clean cloth, and fill space with coarse salt; put in the head; then fill with strong brine, previously made of coarse salt, and stop it up."

Mr. Wright says that butter packed in this way, and kept in a cool place, will be as sweet in one year as when first made.—*X. A. Willard, in Western Rural.*

BLANCHING CELERY.—We copy the following from the *Gardener's Chronicle*, that our readers may give it a trial during the autumn. The *American Farmer* suggest another substance for packing celery in during winter, which it has found very successful when used for beets, parsnips turnips, ect. It alludes to fine moss, pulverized if necessary, such as nurserymen use for packing plants. It is lighter, cleaner, and more easily handled than sawdust. The *Gardener's Chronicle* says:

Having had some trouble in keeping late celery from rotting in a new kitchen garden, which the soil was very retentive and damp, and the plants earthed up in the usual manner, I have since used sawdust for the purpose, and find that it answers perfectly. Last winter all the late celery was earthed up in sawdust, and it kept quite sound till April, and no slugs or insects attacked it under ground, the heads being very solid, clear and crisp, and well flavored. I had some doubts that the sawdust from the resinous tree might give the celery a disagreeable flavor, but on trial I found this not to be the case, and the sawdust is now taken indiscriminately from the sawpits where different kinds of trees are sawn up. Before the late severe frost occurred in October, I had just finished the earthing up of all the late celery with sawdust, and I find it is now wonderfully fresh, the frost not having penetrated far through the surface to the hearts.

From the New York Evening Mail.

THE VINE IN EUROPE.

Recent Observation by an American
Vine-Grower.

Practical Details for Practical Men.

BY CLARK BELL.

FRANCE—(CONTINUED.)

I propose to finish my articles upon France, and to devote the remainder of what I have to say upon this lovely country.

The Champagne District.

This district, which has lent its name to one of the most celebrated wines of France, is within the departments of the Marne, the Haut Marne' the Aube and the Ardennes.

Its most renowned vineyards are probably those of Epernay, Moussy and Vinay, along the Marne, and those of Rheims, the hills about which grow the Sillery, Vergenay, Verzy and others of well known rank, and the level lands containing the vineyards of Hermonville, St. Thierry and others.—The grapes are mostly dark, and quite resemble those of Burgundy in appearance. The soil is very strongly impregnated with lime, and generally on limestone formation and chalk.

At Epernay are the famous cellars of Moët & Chandon, Piper & Company, Roussillon & Ruinart, all of which are well-known names in this country, for the United States have now become one of the largest consumers of champagne of all the countries of the world.

In the Rheims vineyards the vines are set very thickly together, the soil very poor, and the idea seems to be to crowd the vines and produce a small quantity on each vine, to obtain the better fruit, making up the amount by increasing the number of the vines.

There seemed an admixture of iron in these soils, and without high manuring would yield ordinary crops, and planting vineyards or renewing them it is common to manure very heavily, ostensibly for the benefit and health of the young vines for the few years before they come into bearing.

The Cultivation.

This is quite uniform throughout all Champagne. It is quite usual to start vineyards in the Fall or early Winter, rather than in the Spring. The young plant is cut back to a single eye, sometimes two, and the soil very thoroughly stirred.

The vine may bear a little the third year, but comes on along the fourth and fifth years into full bearing.

The vine is trained low, pruned very closely and trained to small stakes.

The grapes ripen early and the vintage is hastened for sparkling wines, and usually before October.

There is close Summer pruning and pinching of Summer growth.

The picking is done by women, and the decayed or defective berries carefully excluded. They are also usually assorted and the ripest and best kept by themselves.

The vineyards are renewed, very often by layers between the original rows, so that after a vineyard has age, its regularity of lines has disappeared, and it is dotted here, there, and everywhere with the new vines started from the old stalks by layers, until the number of vines planted on an acre of ground will be something enormous, and as high as 15,000 to 20,000 in some instances. Generally the culture in Champagne in almost all respects resembles that of Burgundy.

The Manufacture.

The crop for the best wine is gathered and selected with the utmost care. For the brands of renown only grapes of a certain quality and kind are used, and these of species that have had the test and approval of years. Every grape not perfectly ripened is removed—every berry touched even by the frost cut out. Great care is observed in handling the fruit after picking to avoid injuring it, and to keep it unexposed from the sun.

When the grapes are brought to the wine-house they are set in the shade and in a cool place. They are placed on the press with great care and the bunches often carefully arranged.

The must is not casked immediately, but is left to stand for from six to fifteen hours, and when it begins to ferment is transferred at once to the cask.

The grapes are passed with the utmost haste through the wine-press to avoid all coloring to the wine which would follow if any fermentation occurred while in the berry. The barrels or vats into which the new wine is placed are cleaned with the utmost care, and thoroughly sulphured. Then the wine ferments slowly through the Autumn and early days of Winter.

The latter part of December, when fermentation has ceased, the wine is carefully racked off. The wine-maker selects a frosty day for this operation, and shuns a damp or wet one.

About a month later it is again racked and fined with isinglass.

There is a difference in the subsequent treatment in different cellars. Some only fine it once after the second racking, and then bottle at once; others rack the wine twice, and fine it carefully at each racking. The most particular manufacturers, and with their best wine, give it three rackings and two finings, and the benefit of this treatment is frequently plainly perceived in its subsequent management when bottled.

Gelatin is sometimes used, and tannin as a prevention against diseases of the wine, but not universally.

Great care is taken in the selection of the bottles. Every one with an air bubble in or with any defect whatever is thrown aside. They are jingled against each other in pairs, and all that crack or break are charged to the maker.

The bottling commences at various times. In some cellars, as early as latter part of January; some in February, though it is considered that there is extra risk in this early bottling, but the major part is bottled in March and April.

There are strange freaks played by this wine in the fermentation in the bottle.

There is no uniformity about it; some will effervesce in fifteen days, while some will take fifteen months, and some will not effervesce at all, and go through all the year, and have to be mingled with the new wine of the new year's vintage to effect it. This action of the Champagne wine, even in the

hands of the most experienced, is most uncertain and changeable, and while the causes are uncertain and matters of speculation, it is believed by the best makers that the aspect of the cellar, its ventilation, its depth, the soil in which it is dug, its dryness, or exposure to moisture, the preservation of the wine in the wood, the mixture of certain varieties of grapes in the wine, all exert mysterious and unexplainable influences on the strange peculiarities and freaks of effervescence.

A bottle to be used must be new. "No new wine must be put in old bottles," is the "lex scripta" of the Champagne maker. They are carefully cleaned with shot.

The details of the manufacture are very interesting and very complicated, but too extended to follow them in detail within the limits of this article. Machinery is now invented by which the disgorging and recorking of the bottles is done with great rapidity; and indeed, nearly every step in the manufacture is now aided by machinery.

That which probably gives most character to Champagne is the syrup which is finally injected into it. This is done by a machine which, while it removes and changes the cork, still retains all the gas; and at the same time allows every particle of sediment or deposit in the wine (which has been concentrated upon the end of the cork, by keeping the bottle in an inverted position and continually turning it), to be removed before the syrup is injected and the final corking is done.

The recipe for the syrups are kept in most cellars a most profound secret, often from the proprietors themselves, by the workmen who have this branch in charge, who value or affect to value this knowledge as of great worth. All other things favorable, the syrup after all flavors, and gives character, taste, and so to say individuality and character to the wine. It is this which enables the connoisseur to tell the various kinds of Champagne.

It is the most difficult, delicate and hazardous of all known wines in its manufacture, and is attended with enormous risks of breakage and other cause, which render great skill, experience and unusually good facilities to make it successful, but when finished and in perfection it is the most magnificent drink in the whole catalogue of wines.

Champagne,

the youngest and liveliest of all wines, has attained a celebrity beyond all known wines.

It was said that Xerxes offered a reward to him who invented a new pleasure, but what should be said and done in commemoration of that joyous old monk, Father Perignon, who gave to the world the invention of Champagne?

His name and memory should be drank yearly, standing, with all the honors.

He had charge of the vineyards and cellars of the Abby at Haut Villiers, on the vine-clad banks of the River Marne, given to him by the fathers on account of his virtues, foremost among which must have been a good taste, a clear head and an easy conscience.

It is said of him that when old and blind he could distinguish every kind of wine by its taste and flavor, and to him is attributed the idea of the mingling of various kinds of fruit in one wine, which comes down now almost as an adage, from his sayings in France: "That the wine of one grape must be married to that of another."

These monks kept the secret of the effervescing wine long and well, but at length it transpired, and then it came to deck and grace the tables of the crowned heads of Europe, and more recently into universal use.

In a first-rate year the district of Champagne will produce at least fifteen millions of bottles, and the average production is probably half that amount.

France herself, though producing so largely, is not relatively a large consumer of Champagne.

The different countries of Europe all drink largely of these wines. Enormous quantities are exported. Russia is a large customer for Champagne, as is Great Britain and this country. The manufacturers make the wine to suit the taste of the country to which it is to go.

A wine of one character is made for Russia, another for Great Britain, another for the United States; the difference in the main being in the character and quantity of syrup used in the flavoring and sweetening of the wines.

The total production of France in all her districts of wine and spirits I have seen stated at about 600,000,000 of gallons, which is estimated to be worth in France at the cellars not far from \$160,000,000.

Of this enormous product it is probably a fair estimate to say that about one-third of the whole is exported, but representing a value of more than one-third of the home value and probably from \$60,000,000 to \$90,000,000.

Of this the proportion of Champagne exported is relatively larger than other kinds of wine.

The amount of land and soil in our country adapted to the growth and culture of the grape is exceedingly large. California, which is in its infancy in grape growing, already produces something like 8,000,000 of gallons annually, while she has an area adapted to successful culture larger than all the wine districts of France combined. Public attention is so much attracted to this culture there that only a few years will elapse when it will increase to \$40,000,000 or \$50,000,000 per annum.

The culture in Ohio, at Cincinnati and along Lake Erie, has attracted great attention, and a large amount of capital is invested in it, as also in Missouri and some other portions of the West—I mean in the production of wines.

In Western New York the culture has been extensive and most successful, and so far quite free from the disease that have so afflicted the vineyards of the Ohio Valley.

The influence of Nicholas Longworth on the advancement of this culture, and awakening public attention to an interest in it, was greater than that of any other man, if not than any ten men in America.

His descendants have furnished a fair Champagne, manufactured in part upon French methods, which is universally known and drank in this country.

A few other proprietors at Cincinnati and the two companies at Hammondsport, New York, are doing a great deal to advance the standard of pure Champagnes of American manufacture, so as to equal the better class of French Champagnes.

The Pleasant Valley Wine Company, of Hammondsport, New York, make a Champagne from the Catawba and Isabella grape that has decided merit, and its reputation is constantly improving.

The finest vaults that the writer has seen in this country in Champagne manufacture are those of the

Urbana Wine Company, at Hammondsport, New York.

The brand of this company known as the "imperial" is probably the finest or among the finest specimens of Champagne of pure manufacture as yet produced in this country. It very closely resembles the Roederer, and has deceived the very best judges in New York when the labels were removed. The proprietor of the New York Hotel claims to have served it at a dinner to some of the most critical bon-vivants who frequent that celebrated hotel, who pronounced it a very superior Roederer. But all these enterprises have much to learn, and all seem anxious to do so, and there is little doubt but that we are destined to see at no distant day Champagne produced at home in perfection which will rival the finest brands of France, with the bouquet that France can never attain.

The flood of spurious Champagnes thrown formerly on the market, manufactured in the New York cellars, by injecting the carbonic acid gas by machinery, and in Jersey, from all known substances, did much to destroy all confidence in American wines. But the wise legislation of Congress that imposed such burdens upon these manufactures and their prompt prosecution by the genuine makers, has driven most of these forgers of good, true wine out of the business, and very little relatively is done of this business, except secretly. The revenue officers usually smoke them out in the end, and it is to be hoped will destroy them effectually in the future.

There is great interest felt in the trial of Champagne, manufactured on French methods from the grapes of California. The writer has never seen any except the spurious machine made by injected gas, which is unfit to drink, but it is confidently believed that a splendid Champagne will yet be produced on the Pacific coast, which will be worthy of the climate, soil and reputation of the Golden State.

They have every element in their fruit essential to success, and only need capital and employment of skillful men to produce a superior Champagne.

ONIONS—SEEDS and SETS.

It is not practicable to publish each year full accounts of every special culture. Those who have asked us to give an article on onion raising are referred to the *Agriculturist* for April of last year, and to the Onion pamphlet noted in our book list. These give the details of preparing the soil and raising the crop. It is of the first importance to those who undertake the culture of onions, that they secure good seed. It is better to pay a high price for proper seed, than to take that which is inferior for nothing. The onion crop requires too much labor to allow one to run the risk of sowing poor seeds for the sake of saving a few dollars. Our leading dealers are fully impressed with the importance of sending out good onion seed, and that furnished by establishments of good reputation can generally be relied upon. Many correspondents do not seem to understand the difference between seeds and sets, some of them, speaking of sets as "seed onions." The seeds are the produce of the flower; they are

by some called "black seed," to distinguish them from sets. When the seeds are sown in suitable soil and climate, bulbs are formed, the top dies away, and we have the ripened bulb—the onion as we usually see it in market. If these onions be put out the following spring, leaves are produced afterwards a flower stalk appears, which at length bears seed, and the onion completes its career, extending over two years. When the seeds are sown in a warm climate, the bulbs have their development arrested quite early by the heat and dryness of summer, and they ripen up when no larger than a hazelnut and from that down to the size of a large pea. These little, prematurely ripened onions are what are called *sets*, and are harvested and kept with the same care given to large onions. When these little onions, or sets, are put out the following spring, they are not able, like large onions, to throw up a flower stalk and bear seeds, but they go on and grow and gather strength for the effort, forming a large bulb, which at the end of the season, is like that grown, under favorable circumstances, in one year, from the seed. An onion set, then, is a small onion bulb which has been checked in its development, and when planted will resume its growth. If the sets are too large, or have not been raised under favorable conditions, instead of going on to form bulbs, they will produce flower stems. The large onion crops of the Northern States are raised from seed. The sets are used by market gardeners, who sell their onions mostly in the green state, and by those who wish to get a crop of ripe onions early, as they are a month or more earlier than those from seed. South of New York, even no farther than Philadelphia, it is difficult to raise a crop from seed, and the sets are resorted to. Sets are raised in greater perfection further South than they are in the onion districts of the Northern States. In the colder localities, they are longer maturing, and are more likely to run to seed. To raise sets shallow drills, about two inches wide are made 9 or 10 inches apart, and in these, seed is sown so thickly as to almost cover the ground. When the dying of the leaves indicates the ripening of the bulb, the sets are pulled and stored in an airy room, or loft. They are spread in layers of from 2 to 4 inches thick, and when severe weather comes they are covered with 6 inches of hay and left until spring. The sets are planted early in spring, in rich soil, prepared as for a crop from seed. Rows are marked out from 9 inches to a foot apart, and the bulbs thrust into the ground, right side up, three inches apart. The rows are covered with the foot, and afterwards rolled. The cultivation and weeding is the same as for onions from the seed, but less is required. The price of sets varies with the quantity in the market, and ranges from \$5 to \$12 per bushel. The sets of the Yellow Danvers onion keep better than those of other varieties. Those of white onions are the most difficult to preserve, and must not be spread over two inches thick when stored.—*American Agriculturist*.

PREPARING GRAIN FOR MARKET.

A correspondent, who unites the business of a miller with that of farming on a small scale, asks us to urge upon farmers the importance of carefully cleaning their wheat before taking it to market, and complains that farmers take their grain to the mills with a great deal of dirt, screenings, chaff, etc., in it, to the great annoyance and loss of the buyer.—To this question, like most others, there are two sides, the buyer making the complaint of our correspondent, while the seller urges, and with some show of truth, that the fault is not with him, but with the purchasers, in that they pay as much for the foul grain as for that which has been carefully cleaned. We not long since heard of a farmer who had cleaned his grain with great care, taking from it some twenty-five bushels of screenings, chaff, etc., but who found at the market that he could get no more for his wheat than his neighbor did for grain that was very dirty, and thereupon returned and distributed through his grain that which he had taken out, and found himself the richer by the price of twenty-five bushels of wheat.

The sale of grain, wool, and other products of the farm, when improperly prepared for the market, is an undoubted evil, and one of considerable magnitude. Both the purchaser and the producer should endeavor to remove it. If purchasers refuse to reward the careful farmer for his extra labor, farmers, as a class, will not be especially careful in preparing those articles they may have for sale; and if no deception is used, if the purchaser understands what he is getting, it cannot be said there is anything dishonest or unfair in their conduct. On the other hand, no one purchaser can hope to reform the evil by attempting to make a just discrimination. Where there is the usual competition to be found in business, he would only lose his customers and destroy his business.

There should be among farmers a strict integrity, and an honest pride in their reputation as first-class farmers that will place them far above the petty tricks of deception too often resorted to. There is a not uncommon impression among farmers that all who buy from or sell to them, do so with the design of taking an unfair advantage, or, in other words, cheating them if possible. Believing this, it is not unnatural that they should sometimes retaliate in kind, and do that which they suppose is often done with them. It is undoubtedly true that there is much dishonesty among tradesmen and other men in similar business, but the amount is generally overestimated. Usually, we think, farmers can find those who are disposed to deal with them in a fair and liberal manner.—*Western Rural*.

Be always sure of doing good. This will make your life comfortable, your death happy, and your account glorious.

The Poultry House.

How to Feed Fowls.

Fowls are not fed for the mere sake of keeping them alive and healthy on the least possible amount of food. We wish to convert the food into flesh, or into eggs. In feeding for quick fattening it is understood that poultry should be made to eat as much as possible. Our rule for feeding is to throw out the feed twice a day as long as the fowls will run after it and no longer. We are told, and it is our experience also, that fowls thus fed will eat considerably more than if they can go to a feeding-box and help themselves at all times. We want the fowls to eat; the more they eat, within reasonable bounds, the more eggs they will lay, the longer they will lay, and the better condition they will be in. Laying fowls should take exercise. If they can go to a trough and eat at any time they wish, they will take next to none. If they are fed but twice a day, they will hunt insects and wander much more. If fed soft feed, such as wheat bran mixed with corn meal or ground oats, they will be hungry again in two hours after feeding and be off after insects, etc. Give feed, then, only to adult fowls while they will run after it—soft feed morning, whole grain at evening. Keep them supplied with gravel, lime, (plastering, or, better, oyster shells,) ashes to dust in, and fresh pure water, some meat in winter, and they will be healthy and prolific.—*American Agriculturist*.

The Best Feed for Poultry.

"M." of Concord, N. H., believes in feeding fowls three times a day. In the morning, Indian meal mixed with boiled potatoes and well seasoned with Cayenne pepper—the meal, in winter, to be mixed with boiling water; at noon, scraps and a little buckwheat or barley; at night, a liberal supply of wheat screenings or oats, and once in awhile a little corn—but only a little, as it tends to produce fat instead of eggs. Fowls should also have cabbage, rowen hay cut up fine, and powdered oyster shells. For variety, the above grains may be changed for rye, sunflower seed, and the cabbage for onions chopped fine. It is a good plan to keep a piece of iron in the watering dish. He adds: "I have found it a good plan, after a snow storm, to dig away the snow for a considerable space on the south side of a hen-house and then let the fowls out; it will be found, when then is done, that the hens will lay better than before."—*Rural New Yorker*.

CANNING EGGS.—The process of "canning eggs" in their own shells is something new. It was explained at a late meeting of the New York Farmers Club. When two or three dozen eggs are obtained from the nests, place them in a dish and pour scalding water over them, and immediately turn it off. This process is repeated three times, by which means the albumen is fixed or coagulated, the pores of the shells closed, and the egg, as it were, canned in its own covering. The eggs thus prepared are then packed in salt, with the apex downward, and they are said to keep perfectly fresh for many months.

Write your name in kindness, love and mercy on the hearts of those you come in contact with and you will never be forgotten.

THE MARYLAND FARMER

AT \$1.50 PER ANNUM,
PUBLISHED ON THE 1ST OF EACH MONTH,
BY
S. SANDS MILLS & CO.
No. 24 South Calvert Street.
CORNER OF MERCER,
BALTIMORE.

S. SANDS MILLS, } PUBLISHERS AND PROPRIETORS.
E. WHITMAN, }

BALTIMORE, APRIL 1, 1870.

TERMS OF SUBSCRIPTION:

\$1.50 per annum, in advance—6 copies for \$7.50—10 copies
\$12.00.

TERMS OF ADVERTISING.

1 Square of 10 lines or less, each insertion.....	\$1 50
1 Page 12 months	120 00
1 " 6 "	75 00
1/2 " 12 "	70 00
1/2 " 6 "	40 00
1 " Single insertion.....	20 00
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REMOVAL.

E. WHITMAN & SONS have removed to No. 145 West Pratt Street, formerly the Baltimore and Ohio Railroad Depot, opposite the Maltby House, where they will have increased facilities and conveniences for extending their manufacturing business, and keeping on hand a larger and more complete stock of agricultural implements and machinery than heretofore. With the advantages of the location, and the introduction of greatly improved machinery in the manufacturing department, they will be enabled to supply every variety of improved labor-saving machinery at the shortest notice and at the lowest market rates.

APOLOGETICAL.—Severe and protracted illness of the editor, S. Sands Mills, must be our excuse for any deficiencies apparent in the present number of the *Farmer*. We feel confident that our readers will make due allowance, and that they will join with us in wishing him a speedy restoration to health.

REMOVAL.

The office of the MARYLAND FARMER has been removed to No. 145 West Pratt Street, opposite the Maltby House, in the *New Agricultural Buildings* of E. WHITMAN & SONS, where we will be pleased to see our friends at all times. The new office is centrally located, being convenient to the steamers and railroads.

"STONEWALL JACKSON."—It affords us pleasure at all times to note improvements in stock raising.—The latest coming under our observation is Gov. Bowie's celebrated thorough-bred stallion bearing the above name, whose reputation is almost national. At the solicitation of many who desire an improvement of their stock, the proprietor has consented to quarter him for the present season at the Gen. Wayne Inn, in this city, where all who desire may improve the opportunity. We are personally acquainted with the pedigree of this noble animal, and of the many premiums for superiority he has received at different periods from State and county agricultural fairs. Further particulars may be obtained by reference to our advertising columns.

HARROWING WHEAT.—It is the custom with many farmers to sow clover or grass seed in the spring upon their winter grain. Before sowing the seed, if an ordinary harrow with sharp teeth is run over the wheat or other grain, the crop will be materially improved by it, and the ground at the same time will be put in a much better condition to receive the clover seed than if sown without harrowing. Some might apprehend injury to the wheat by giving it a thorough tearing with the harrow. But select a time as early in the spring as the ground is just dry enough to work lively, and a good harrowing will prove as great a benefit to the crop as a thorough plowing or cultivating will to a crop of growing corn. If you are afraid to make the experiment on a hundred acres, try it on ten, or even one acre, and report to us and the world the result.

Whether grass seed is to be sown or not, the harrowing will pay many times the cost of the operation. If the work should happen to be done just before a shower of rain the effect is readily marked. We have tried it and know.

Grain on light, sandy land, will be improved by running a roller over it instead of the harrow.

Success in Life is very apt to make us forget the time when we wasn't much. It is just so with a frog on a jump; he can't remember when he was a tadpole— but other folks can.

THE CULTIVATION OF CORN.

The mode of cultivating this the noblest of all the cereals is so well known to all experienced farmers that anything we may have to say to such may appear altogether a work of supererogation. Nevertheless there are many others to whom a knowledge of the soil best adapted to corn, the constituents within the soil itself which the plant requires as food to bring it to perfection, and the best method of providing a partially exhausted soil with those elements of fertility which are essential to the proper growth of this crop may not be without value. We therefore take up the different points we propose to discuss in regular order. First, then,

As to Soil.—The soil best adapted to corn is a light, sandy loam. It cannot be too rich, either naturally or by the application of manures, for corn is a gross feeder, and will flourish vigorously where wheat would fail from over stimulation. Light alluvial bottoms, therefore, when brought under a good state of cultivation, with a dry surface soil and a moderately moist, but by no means wet, under-soil, will often produce year after year, as in the Ohio bottom lands, enormous crops of corn. But such soils are rare, and the next best are rich, sandy loams, or old meadow land, well manured on the sod, ploughed deeply in the fall, allowed to remain in a rough state throughout the winter, and again ploughed lightly in the spring, following immediately with the harrow in the direction of the furrows.

Constituents of the Ash of Corn.—Agricultural chemists have laid it down as a rule that if the constituents contained in the ashes of any given plant are known, a clear knowledge is thus acquired of what the soil should contain to produce that particular plant. Analytical chemistry thus became an important branch of the science of agriculture, and tables have been prepared showing what substances enter into the composition of all sorts of plants, and which must be found in the soil where that plant is to be cultivated to a profit.

In respect to Indian corn, Professor Johnston furnishes the following analyses of the stalk and grain of Indian corn when reduced to an ash. In one thousand pounds of the ash of the grain, and another thousand pounds of the ash of the corn stalks, he found the following constituents:

Corn Stalks.	Grain of Corn.
Potash..... 95	} 325
Soda..... 285	
Lime..... 83	14
Magnesia..... 66	162
Oxide of Iron..... 8	3
Phosphoric Acid..... 171	449
Sulphuric..... 7	28
Chlorine..... 15	2
Silica..... 270	14
1012	997

As the proportion of ash contained in any plant represents the amount of inorganic matter that enters into its composition, the above tables will serve to guide any farmer in the application of fertilizers to his corn. Throwing out the silica, which all light soils yield in abundance, he will observe that these important constituents are required above all others in a soil where corn is to be cultivated.—These are *potash* and *soda* and *phosphate of lime*.—After these come *lime* and *magnesia*, both of which are equally essential with the others to the growth of the crop, although the proportions required of each are far less.

Let us now examine what quantity of these inorganic substances are abstracted annually from each acre of soil by a crop of corn. We assume that crop to have yielded ten barrels of corn to the acre. If larger, the loss will of course be so much greater in proportion.

Inorganic substances abstracted from the soil by an acre of corn:

Silicic Acid.....	189.040
Sulphuric Acid.....	53.569
Phosphoric Acid.....	25.799
Phosphates of Iron, Lime and Magnesia.....	72.066
Chlorine.....	33.394
Organic Acids.....	12.203
Potash.....	72.643
Soda.....	99.463
Lime.....	16.761
Magnesia.....	24.506
	599.254

In other words, a trifle short of 600 pounds in all. From the tables we have just given it will be evident that the farmer who has to apply fertilizers to his land for the purpose of growing heavy crops of corn must rest his main dependence on such as are rich in soda, potash and phosphate of lime, and which also contain in a lesser degree lime and magnesia—and that the production of the grain of corn requires above all a liberal supply of phosphate of lime, which is required in a proportion nearly equal to that of all the other constituents combined, and that next to this in importance are potash and soda.

As respects the cultivation of corn, that process, though laborious and incessant, is quite simple and is easily comprehended. The ploughing should be as deep as the nature of the surface soil will admit. It should also be well and thoroughly done, leaving no clods and no balks. After this comes the harrowing, which when concluded should leave the soil as light as an ash heap. Next follows checkering off. The lines may be run off with a single horse plough four feet apart each way, or three by four, as the planter may desire, but they should be run straight in any event, and at the intersection of each square the hill should be formed, dropping from three to four grains of corn in each bill well apart, and covering at once with the hoe. After the

plants are well up go over the field and thin out to two, or not more than three stalks in the hills, leaving of course those that show the greatest vigor.—Then follow with the hoe about the hills, and keep the soil loose between the rows with the cultivators and shovel plough. Do not ridge the land, but keep all flat, as flat cultivation retains and absorbs the rains better, and the land is less subject to wash. The subsequent operations consist in keeping the land well stirred, so that the soil shall be light and loose all through the growing season until the corn begins to tassel. When this occurs the labor of cultivation is finished, and nothing more remains to do but to let the corn mature.

EARLY ROSE POTATOES.

The following we extract from a letter addressed to the *Kent News*, Chestertown, Kent Co., Md., by G. Wm. Stavely, Esq., of Labaska, Pa., President of the Bucks County Agricultural Society, and formerly a citizen of Kent, and whom we knew of yore:

"I saw in your paper some months since an account of a large product of Potatoes by one of your farmers, I think about forty-five bushels from one bushel planted. This is a good yield but not quite equal to a crop of Early Rose, cultivated by my son, Dr. Stavely. In the year 1868 he bought a few pounds of Early Rose potatoes from the proprietor, at the rate of \$80 per bushel. These he planted carefully, cutting down to single eyes, and when secured he had one bushel, or seventy pounds. This seventy pounds he planted again last spring, and had the enormous yield of *one hundred and eleven and a half bushels*. After being gathered and put in the cellar, they were neatly assorted and counted into bushels, making the amount above referred to. The most of them have been sold or engaged at \$3 per bushel, for planting next season; but they still remain packed in his cellar, making a singular and handsome appearance from the early starting of eyes. There have been as many raised in proportion to the above in a few instances in our county, by planting in a very careful way and cutting down to single eyes; but the above is the largest yield upon such a large scale that I have ever heard of any where."

Friends Plumer & Usilton, editors of the *News*, add in this connection:

Mr. W. F. Massey, of this town, purchased in the spring of 1863, one pound of Early Rose potatoes from B. K. Bliss & Son, of New York. The package was opened in its passage through the mail and the eyes cut out of the largest potato, leaving him three small potatoes. These were cut to one eye, and the potato without eyes was also cut and planted. All of them came up, and the product was *thirty-five pounds* of large potatoes, and this yield was obtained without any extra cultivation. Last season he planted about a fourth of a peck, and the product was nearly fourteen bushels!

WHEN Friendship is to be Valued—Value the friendship of him who stands by you in the storm; swarms of insects will surround you in the sunshine.

FOR THE MARYLAND FARMER.

EXPERIMENTS WITH SEED RECEIVED FROM DEPARTMENT OF AGRICULTURE.

BY H. G. LAWRENCE, M. D., CLARKSVILLE, MD.

Peas.—Dunneit's First Early, sowed April 16, bloomed May 18; very early and a good pea, but not prolific; grew about thirty inches high. McLean's Epicurean, ten days after Dunneit's. Peabody—a dwarf variety—twenty-four inches; this is not a good pea nor a good grower, and is a small bearer generally, only two peas in a pod. Carter's Surprise; very prolific and of good flavor. The last two varieties ripened alike, and one week after McLean's Epicurean.

Beets.—Dwarf Deep Blood Red, an inferior quality; and, in view of the superior qualities of Early Bassano and Pine Apple, I would not recommend it. The Early Bassano was the earliest and best of my beets. The Pine Apple was of good quality. One of my beets was twenty-three inches in circumference, another still larger.

Beans.—Early Yellow, a fine early variety and good yielder; Early China, a later, but good bean, moderately productive, and adapted to the climate; Large White Kidney, an excellent bean, of very fine flavor, but not very productive.

Cabbages.—Large Winter or Winter Lettuce, of fine flavor, prolific, crisp and tender; Large Late Hardy Winter Drumhead, Savoy and Schweinfurt Quintal, did not do well with me, but another experimenter near me gives a good account of them. The severe drouth we suffered in this section would modify any unfavorable report I may give of results of the different varieties tested.

Radishes.—White-Tipped Scarlet Oval, sowed April 16, fit to eat in three or four weeks, well-shaped, mild flavor and productive; the best of the radish kind unquestionably, and I would recommend this variety to lovers of that esculant.

Onions.—Large Madeira and Large Tripoli did not appear adapted to the climate; Wethersfield, Large Red, Yellow Danvers and White Lisbon did better, but none of them proved good keepers, which probably was owing to the mild winter, as they sprouted soon after storing.

Sweet Corn.—Burr's Mammoth. I cannot recommend this variety.

Carrots.—James' Scarlet; small and inferior to Long Orange.

Celery.—Dwarf White Solid; a fine variety, of good flavor and size.

Okra.—Long Green; a good variety, which did well.

Watermelons.—The striped bug killed all the vines, but I have since learned two infallible re-

cipes. The vines killed were those raised from the Department seed and planted first. From seed of my own raising, planted later, I raised enough melons for my own use by putting on the vine a mixture of ashes, sulphur, soot and plaster. This should be put on the vines when dry. The recipes are: 1st. Put a tablespoonful or two of kerosene (coal) oil into the watering-pot with the water; keep stirring and apply. 2d. Apply a strong solution of hen manure. These should be applied after sundown.

SPRING GRAIN.

Oats.—White Schonen; two quarts weighed two pounds, thirty-two pounds per bushel; later than my ordinary field oat. Black Swedish; one quart weighed one pound one ounce, thirty-four pounds per bushel. This variety was still later than the White Schonen; and as earliness is of more importance in this section than any other quality, I cannot recommend the above varieties. As a rule, the earliest oats with us are the best; those ripening late are generally light and inferior in quality.

Barley.—Saxonian; one quart weighed one pound five ounces, forty-two pounds per bushel. Probstair; one quart weighed one pound two-and-a-half ounces, thirty-seven pounds per bushel. These varieties both grew too small and too late for this climate, and while I have been endeavoring to introduce into my section a variety of barley that would partly or entirely supersede the oat, I cannot recommend either of these varieties for that purpose. My reasons for desiring a substitute for the oat are these: a good variety soon deteriorates; and, after a few years of cultivation, we have a small, light grain, hardly paying for cultivation. If the land is too rich for it, that is as rich as land should be to raise maximum crops of corn, wheat and grass, it falls down; if too poor, it will hardly grow at all, and an unfavorable season retarding the ripening materially reduces both quantity and quality.

The disadvantage of falling down might be removed by sowing a stiff-strawed variety, capable of enduring rich land, and warm weather, and also of retaining its distinctive qualities. Hitherto we have found no such variety, but the fact that our best and heaviest oats are always "lodged" and down at harvest renders a new variety, or substitute for the grain altogether, a necessity. I have ordered seed, for which the above qualities are claimed, and will give you results. In regard to the *vitality* of the Department seeds, I found it equal to that of any other seeds purchased from our best seedsmen the same season, (1869,) and while results proved they were not always adapted to this climate, (which, in fact, is not claimed by the Department,) I found them to contain germinating power equal,

and in some cases superior, to seeds procured from private sources.

I cannot close without recommending to your lady readers an excellent plant in the floral line, which I procured from one of your advertisers, (B. M. Watson, Plymouth, Mass.) in the spring of '68, viz: *Louicera Halliana*, or New Fragrant Perpetual Evergreen Japanese Honeysuckle. Its habits, with me, conform to its name. It is a rapid grower, flowering abundantly, of delicious fragrance, and hardy. For trelliswork, screen for out-houses or porches, I do not know its superior. In two seasons, properly trained and attended to, it will completely cover an ordinary balcony and flower the second season. It reached me in fine order, proving care and knowledge upon the part of the sender. It may readily be propagated by layers or cuttings.

NATURE AND USES OF PLASTER.

The question is often asked among farmers, "Of what use is plaster? When, where and how shall it be used?" And I have never heard a satisfactory answer given to them. Nearly every farmer who had made any application of plaster, had found it serviceable at one time, but without profitable returns at another. No one within my acquaintance knows the reason for success or failure.

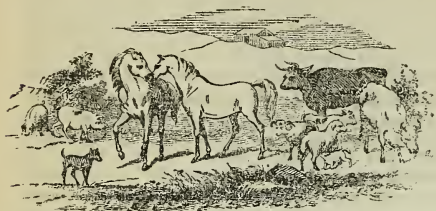
Most people found the application to clover attended generally with good results; some found it good sometimes for potatoes; but not a single one could tell. What is plaster good for? Chemistry solves the question: Plaster is sulphate of lime. To different branches of science it is known by different names. In the arts it is plaster; in mineralogy it is gypsum; in chemistry it is sulphate of lime. It is sulphuric acid and lime. Sulphuric acid has an affinity for ammonia, and when it finds ammonia it breaks up its partnership with the lime and combines with the ammonia, forming sulphate of ammonia, and this is non-volatile. The lime finds a companion, when deserted by the acid, in carbonic acid, forming carbonate of lime.

Hence, it will be seen that when the farmer has ammonia in his soil, put there by himself in manure, or in any other manner, liable to waste, the plaster will fix it there, and in all such cases it can be applied to the ground with profit. The odor about stables and manure heaps, is escaping ammonia, and the farmer can judiciously use a little plaster in both places, saving the ammonia for his land.

Plaster saves to the soil nitrogen, one of the chief mineral elements entering into the growth of plants; ammonia is three parts hydrogen and one part nitrogen. Ammonia escapes from decaying vegetation wherever it is found, and is suspended in the air, and when after a long, dry spell, and considerable quantities of it has ascended, the first rain brings it to the earth, and if there is a little plaster in the clover field, the ammonia never rises again.

This very study into the uses of plaster shows that the farmer should be a student, and in some degree, a man of science. He must learn that in doctoring his soil something else than mineral substances may be needed. He may need organic substances as well, and to know this is the duty of the farmer. But I trust I have explained the nature and uses of plaster, so that whoever reads may know when its application may be serviceable.—*Ohio Farmer.*

Live Stock Register.



WHICH IS THE BEST COW ?

BY A SOUTHERN PLANTER.

As the Southern people no longer invest their money in land and negroes, they now have means to improve their stock. The inquiry then is natural, what breed of cattle will pay the best? There is some diversity of opinion on this point.

In the choice of breeds, somewhat will depend on your climate, soil, and position. If your soil be rich, and your pastures good, the Short-Horn is the cow for your choice. In size she is large, in color, red, red and white, spotted, roan or creamy white—all beautiful colors when clean, and no color is agreeable when dirty. Her value, depending somewhat on the purity of her blood, her style of appearance and milking quality, may be from \$100 to \$300. For milking purposes only, the first is a reasonable sum, the latter extravagant—even a "breeder's price." For all useful and ornamental objects combined, a hundred and fifty dollars will secure the cow you want; and she is a cheap animal at that. She will give you, on good pasture, twenty to thirty quarts of milk a day, making six to twelve pounds of butter per week, and on hay and slops half to two-thirds the quantity of each for six months of the year, and a proportionably good yield for four months more, allowing her to bring a calf every year. In the pasture, the paddock, the stable or the yard, she is always an object of beauty and admiration, if well kept, and without good keeping no cow is worth anything.

The Devon is a beautiful, graceful, deerlike creature, of a cherry red color, a gazelle eye, an upturned, long, graceful horn, as lithe in her action as a fawn, gentle as a kitten, and usually an excellent milker. Smaller and more active than the Short-Horn, she will subsist on closer pasture and less stable food, although she requires good keep. She will, if of a milking family, give as much milk and butter according to the food she consumes as the Short-Horn; so that in an economical view they are about equal—the point of difference being in the taste you indulge

for one or the other variety. Her sale value is in about the same proportion to the Short-Horn as her weight and quality. In hill or mountain scenery, the active Devon is perfectly suited to the place, while on plain and low land the Short-Horn is in its truer character. Yet either of them, in any habitual place, are useful and satisfactory cows, and beautiful objects to look upon.

Next comes the Ayrshire which is the famous Scotch dairy cow, a composite variety, bred near a century ago, into a class, by a cross of the English Short-Horn bull, on the native Kyloe, acclimated on the Scotch low lands. She is usually red and white in color, the red rising into a yellowish dun, or falling into a chestnut brown, her general appearance being that of a diminutive Short-Horn, with less style and symmetry, but still of marked character. They are good milkers, though not so good in America as in Scotland, (in which latter country the frequent rains give them always good pastures,) but still good both in milk and butter. They are gentle, kind in temper, and easily kept.

The Alderney is the "paddock" cow of the English gentry in the south of England. The Channel Islands of Guernsey, Alderney and Jersey, are her native soils, where she has for centuries been bred and improved—brought originally from the adjacent coast of Normandy. She is a diminutive creature, fawn color and white in complexion, with a soft, silky udder, yielding a moderate quantity of the creamiest milk in the world! She is delicate, too, in habit, requiring warm housing in rough weather, and plenty of nutritious food. She is not beautiful to the eye, wearing a scraggy look, but with the eye of a gazelle, and a head as blood-like as the elk—more like an elk, in fact than any other—bating the horn, which is a little crumpled thing that may barely be called a horn. She is sway-backed, crooked-legged, and cat-hammed, yet, withal, has a look of caste and high-breeding, even in her diminutive ugliness, and will ornament your paddock yard or pasture, as your taste or partiality may direct.

Thus we have given you a selection of these varieties, and without declaring our preference of either, you may view each and select for yourselves. This, however, we distinctly say—that no country dweller need think himself a man of taste who does not adopt one or the other of these, either "thorough-bred," or of sufficient of the breed in their composition to mark them distinctly from the "common" cattle of the country, and shows that he is a man of taste in the selection of his cows. A mean looking cow on a highly-cultivated country place is an absolute disgrace to its owner.

We trust our planters will club together in each neighborhood and get enough subscribers to the

AMERICAN STOCK JOURNAL to secure a thorough-bred bull, so as to begin raising a species of cattle that will furnish more and better beef, also double the supply of milk and butter, and consequently bring more money into the pocket of the owner than the scrub stock will.—*Am. Stock Journal*.

Hints on Spring Management of Stock.

Many farmers consider themselves "out of the woods" with their stock when the spring-like days of the last of February and the first of March make the hens cackle and the turkeys gobble. But the most critical time is yet to come, if we may judge the future by the past. Cattle are very little over half wintered on the first day of March, take the seasons as they average.

However well the farmer may have tended his stock up to this time, they will not bear much neglect from now till pasturing time, without severe loss. Neat stock that have so far been properly tended are now beginning to shed their coats—a change in their system which is always accompanied by more or less severe itching of the skin. The card should be frequently used from this time till the new coat gets fairly established.

Working oxen need to be in good flesh, or spring work will pull hard upon them. Cows coming in should be kept in wide stalls or loose boxes, well littered, fed some roots if possible, and closely watched and perhaps assisted at calving.

Feed roots to all classes of stock, particularly to those which may be breeding, and by this means counteract the tendency to constipation.

Those who feed no roots or grain should now give their neat stock a dose of sulphur or saltpetre occasionally to loosen the bowels; this will also tend to allay the itching of the skin before alluded to, as consequent upon the shedding of the coat.

Vermin are apt to appear at this season, especially on young cattle. Use the card and brush freely, and apply unguentum mixed with 4 or 5 times its bulk of lard, behind the horns and down the spine—a sure cure.

Washing with soap suds also has a good effect the same way, as well as to destroy the lice if there are any. They should be washed upon a warm, sunny day, with suds as hot as the hands will bear. Most cattle have an appetite for soap suds, at this season of the year, which should be gratified by occasionally sprinkling some upon their fodder.

Without pretending to teach practical farmers how to manage their ewes, we suggest the necessity of close attention to the flock during the coming trying season. With reference to ewes, if they are in a sheltered and properly formed lambing-shed, it is an excellent principle to leave them alone as much

as possible, during labor and parturition. Although they should be closely watched, the less they are handled the better, until the lapse of time or some characteristic symptom convinces the shepherd that all is not right. Loose wool should be carefully removed from the region of the ewe's udder, before the lamb is allowed to suck, as, if this is neglected, lambs are apt to swallow portions of wool, which eventually prove fatal.

When a ewe, for any reason, is not kindly disposed to her lamb, a contrivance is used for the purpose of compelling her to submit while the lamb draws its natural nutriment. It consists of two net stakes driven into the ground within a few inches of each other. The refractory ewe's head is placed between these upright bars, the tops of which are then drawn close enough together to imprison her. The stakes are held in this position by means of a band. This simple apparatus is within a pen or small enclosure devoted to the ewe, and is sometimes rendered more perfect by placing a third hurdle stake horizontally under the ewe, across her belly, and resting the ends of this stake on a hurdle on either side. This prevents her from lying down upon her lamb, as she otherwise might, to its great peril.

Brood sows require especial attention before and after pigging. They should be fed sparingly, on light food, for a day or two after they have had pigsthen as much nourishing food as they will eat, for no sow can furnish milk enough for a large and growing family with scant feed. If you wish the pigs to become properly developed, they must be supplied with milk, or other food, as soon as they will eat. Pigs treated thus will pay 20 per cent, better than those that are neglected. Care should be taken to have each sow separate sometime before pigging, and not allowed too much bedding, as there is less danger of smothering her pigs than when much litter is allowed.

We prefer ground food, cooked or scalded, for pigs at all times. For young pigs, corn and oats ground together is the best. In short, let us have the best breeds, the best breeding, and the feed to insure a good stock of any kind.

Give hens a chance to pick at the first grass, chick weed etc., that starts. It will encourage them greatly. Let not the high price of eggs hinder setting plenty for early chickens.

Look out in advance for good fresh seeds of all kinds. Try those on hand to see if all are sure to grow. Secure new and valuable kinds. Good plants will never grow from poor seed.—*Am. Stock Jour.*

The following sentiment is attributed to Napoleon Bonaparte: "A handsome woman pleases the eye, but a good woman pleases the heart. The one is a jewel—the other a treasure."

SHEARING SHEEP.—To shear a sheep well, requires practice and patience.

To have the sheep quiet, keep him in an easy position; to cut the wool easily and even, let the surface over which the shears are passing be kept rounded out, and the skin drawn smooth.

My way is, to set the sheep on his hind quarters upon the floor, with his back towards the shearer. While in this position, the brisket, belly, and edges of the flank and thighs are sheared. Then the operator kneels on one knee, lays the sheep's neck over the other knee, and shears it carefully on the left side, up to the head. He then stands upon his feet, bends the sheep's head to the right side, and shears the fore leg and left side around to within one or two clips of the back bone, and so on to the thigh. The sheep is then laid on the broad side, the hind leg extended with shearer's left hand, and the wool clipped from that and the buttock. The knee of the shearer laid over the sheep's neck keeps him quiet. The wool left while going down the back is cut with clips lengthwise along the spine. The sheep is then set up again and the other side finished in like manner. All tag locks, burs, etc., should be removed before shearing, and the floor be swept frequently to keep straw or dirt from wool.—*Cor. of Stock Journal.*

SHYING HORSES.—L. A. D., in the *Scientific American*, says that a horseman should never "shy" himself, when the horse shies, or show the least nervousness, nor notice it in the horse, and far less, punish him for it, and adds:

Allow me, having had a great deal of experience in managing horses, to add another bit of advice to nervous horsemen. Whenever they notice their horse directing his ears to any point whatever, or indicating the slightest disposition to become afraid let them, instead of pulling the rein to bring the horse towards the object causing its nervousness, pull it on the other side. This will instantly divert the attention of the horse from the object which is exciting his suspicion, and in ninety-nine cases out of a hundred, the horse will pay no more attention to the object, from which he will fly away if forcibly driven to it by pulling the wrong rein.

BREEDING FOR YOUNG MARES.—A correspondent in Vermont asks horsemen to give the results of their experience in breeding to old and young mares. He asks, "how old a mare should be before she begins to breed, and whether it will not pay better to breed to first-class young mares than to old ones." After a mare has ceased to grow, it is safe to breed to her; and, other things being equal, we should rather have a colt from a young mare than an old one. What say horsemen of experience?—*Rural New Yorker.*

USEFUL RECIPES.

BREEDING BULL OR HEIFER CALVES.—A celebrated European breeder gives the following directions on the subject: The peculiarities of different cows should be observed, and taken into account. The number of hours during which they take the bull varies from twenty four to forty-eight. To obtain a heifer, the first of this period is selected; for a bull calf the latter part.

Exceptional animals, such as are fat or tied up, afford no fair criterion; but healthy, well-constituted specimen, living in the open air, should be selected for experiments.

CURE FOR GALLS, SORES, SCRATCHES.—Take two ounces extract of lead, two ounces spirits of wine, one ounce sal ammoniac, half ounce white vitriol, four ounces soft water; mix, dissolve, and wash three or four times a day.

FOUNDER OR LAMINITIS.—A horse with laminitis should have his shoes removed in the first place, and should then have his feet enveloped in warm bran poultices. They should be renewed every twelve hours, and this treatment should be continued for several days. A dose of physic should also be given, seven or eight drachms of aloes in ball, and the diet should be limited to bran mashes and a little hay for several days afterwards. Even when the horse has recovered oats should be given very sparingly for a time.

Some bleed very heavily in this disease, and some practice blistering, but we think that neither of these plans are attended with any benefit. We especially object to bleeding from the toe, as it frequently causes troublesome sores in this foot.

LICE ON CATTLE.—To kill these parasites, use three parts kerosene oil to one of lard or currier's oil; mix well, and apply with a brush to the parts where the lice appear in greatest number.

THROAT DISTEMPER IN HORSES.—Take devil's bit, or wild turnip, if green, grate a small one fine; if dry, a heaped spoonful, mix it with wet bran or oats. This repeatedly given, has never been known to fail. It is also a certain cure for a cough.

COLIC IN HORSES.—We have never known the following prescription to fail of curing colic in horses: "Aromatic spirits of ammonia, half ounce; Laudanum, one and a half ounces; mix with one pint of water, and administer. If not relieved repeat the dose."

DIARRHŒA IN HORSES.—If the diarrhœa is due to the irritating properties of the animal's food, a mild purgative should be given to remove irritant materials, and the diet should be changed. Food containing a comparatively small proportion of water, such as hay and oats, tends to diminish the frequency of the evacuations, though this remark may not apply to new hay and oats. The following may be given in a pint of flour gruel. Two drams powdered camphor; three drams of powdered rhubarb; one dram of powdered opium.

IMPROVING HORSES WIND.—Mix charcoal and tar water with his feed. We have tried it with most beneficial effect; and I think it stands to reason that the removal of noxious gasses and flatulence from the stomach of the horse must improve his wind and condition. A few weeks since we had a horse very much affected in the wind, and could hardly move from distress. In a very few days this animal did its regular work, with perfect ease and comfort to itself. Tar water was the cure. Tar is carbon, and charcoal is also carbon; charcoal in the powder is more easily given than tar water.

Horticultural.

SMALL FRUITS.

The culture of small fruits demands, merits, and receives a greater share of public writing than all other branches of Horticulture combined. The Strawberry and Currant are indispensable household fruits, without which no housekeeper feels satisfied. The Gooseberry is indispensable among all who come from the British Isle, and even the Yankee is apt to remind his wife of how his mother put down green gooseberries in bottles packed in sand, necks downward, for the purpose of pies and tarts in winter. Of course, this was before the canning process was understood, but it none the less makes good the knowledge and value of small fruits possessed by our forefathers and mothers, and which we hope to continue and improve upon.

The Raspberry always caused a "*Jam*," and at this day is equally appreciated as of old when in, or having a *Jam*; yet some fruit growers object because when there is a jam, of cases, it does not always result profitably.

The Blackberry which now has become a fruit of the garden, was once only to be gathered from the thicket or fence corner; and yet, when Blackberries were ripe, did we not all have to turn out into the woods, etc., and do our best amid jokes and scratches, of which the one was as often a pain as the other?

These items and more, that we could recite, are reminders of the values our fathers and mothers set upon the having of small fruits in the family, and while most of us now regard them equally as essential to health and happiness, as did our parents, we have also come to look upon them as cultural products begetting money.

THE STRAWBERRY.

Taking Strawberries as the small fruit crop, first to develop itself in spring, let us consider each for ourselves—mentally—the statements that have been made as to the soil requisite or suitable for their growth, and without wasting words, condense the matter into a common sense fact known to all, viz., that any soil in which a good crop of Indian corn can be grown there also will the Strawberry be satisfactorily successful. It is a plant forming roots, and crowns, or seeds of fruits, one year, maturing them the next, and continuing its own individual existence by throwing out new roots and crowns, as the old have done their work and decayed, while it also has a system of reproduction and increased by means of tendrils or runners with buds, from which are produced roots and crowns fac-simile of the parent plant.

If the soil is very rich and deep, it will, like any

other over stimulated creation of life, exert itself for a season, in producing extra size foliage; give also a portion of its fruit of extra size, but often—aye, I think I may say, always—at a loss of hardy vitality in the one, and of flavor in the other.

Extra production one year followed by a loss of weakened vitality in plant or seed, and frequently also a loss of crop the following season, is not profitable to the general producer, however much such extra product may redound for the time to the credit of an amateur or gardener; or assist the new beginner in paying off a debt—what all want, and with which all should be satisfied, is a fair average crop of good sized matured fruit possessing the character and qualities that serve to make it desirable and healthful. These can be obtained from the strawberry by planting in any good, common soil, be it clay, sandy, or gravelly loam, the planter guiding himself by common sense reading and information, as to the varieties best suited for each soil, by the practical tests and trials recorded in books and newspapers, just as he does in the use of seeds, toward a profitable crop on the farm or in the garden.

The roots of the strawberries, although extending a long distance, rarely penetrate deep into the ground, and while as in a crop of corn a good depth of surface loam or soil is desirable, deep underdraining, serves only to prevent excess of water standing among the roots in case of long continued and heavy rains, or possibly, by capillary attraction, supplies additional moisture in times of drought. The underdraining becomes necessary only where the planter's location is liable to excess of water, as the practice of mulching, while it protects the plants from frost in winter, serves also to keep moisture during the most severe drought. In saying that the preparation of ground for a strawberry bed or plantation is no more than that for a good crop of corn, or for the ordinary products of the kitchen garden, I suppose I shall be met by opponents, and regarded as backsliding from advice tending to aid and advance improved cultivation, but I choose that the strawberry should multiply and be in the grounds of every land owner, rather one man should be deterred from planting under impression that deep draining and digging and enriching are indispensable and involve expense and labor that he feels he cannot at the time afford.

Let the ground be plowed or dug one inch deeper than the natural depth of soil or surface loam upon it; rake it smooth; set the plants, during April or May, in rows three feet apart, and the plants one foot apart in the row, taking care never to bury the crown, as too deep setting is more likely to result in death than too shallow; simply see that the roots are covered with the soil and the first work is done, as during April or May, the weather or rather the

soil, is rarely so dry but what the root will form anew without the aid of any artificial watering.

In about one week give the whole surface of the ground a stirring of about one inch in depth with the scuffle or draw hoe, taking care not to hit the crowns of the plants; after which, if the grower prefers mulching to an occasional stirring of the soil, now is the time to apply it, and for mulch use straw, bog hay, or fresh mown grass, covering the earth a depth of four inches, but taking care not to cover the crowns or foliage of the plants. This mulch should be removed in September and again returned the last of November, or as soon as, but not until the ground freezes.

In some localities a winter protection of mulch is essential, and everywhere desirable, but in many places, and especially in protected gardens, it is not absolutely requisite, for often an unprotected bed produces just as much and as fine fruit as a protected one side by side, yet where mulching can be done without too much cost, it is well to do it.

The succeeding year after planting comes the crop. After it is all gathered they either plow or dig between, and take out grass or weeds from the rows, at the same time taking a spading fork and loosening all the soil among the plants and thinning them to a distance of about one foot apart in the row as when first planted, pursue the cultivation or mulching as in the former year, and the strawberry bed will continue just as long as you desire to have it, and continue to dig in all the plants and weeds and mulch that grow or are put upon it from year to year.

Of varieties to cultivate the list is almost equal to the stars in the sky, and beyond numbers, but the Wilson is known to prove a hardy plant and successful in almost every location, and although it is not of the highest quality, yet when full ripe few surpass it, when prepared for the table with sugar and cream. The Downer's Prolific is another hardy sort, quite early. Ida is also a hardy sort, productive, both early and late in all soils, but too small to meet the favor of market fruit growers, or fancy gardeners. Lady Finger is also a hardy plant, and successful in light or heavy soils. Hovey is one of the firmest and best of berries, only moderately productive, and does best in clay loam, although in some seasons it does well in deep, sandy loam.

Triomphe de Gand is best in clay loam. Jucunda is valuable only in clay loam. Fillmore is a fine variety for family use, when grown in clay loam.—Napoleon III. will give some large berries, under good treatment, in clay soil, but Rivers' Eliza, if obtained true (the false one often being grown,) is perhaps the best of all the foreign varieties, when grown, as years have taught us is best with all foreign varieties in clay soil. Each year brings its new varieties by the scores, and the past, 1863, has been no exception, but all these, while new and untested, should receive only the notice of amateur gardeners and experimental growers. No sane man being supposed to plant of them looking forward to a supply for his family.

WHEAT.

Its History, Peculiarities, Location and Growth. Can it be Produced from Grass?

'Tis said that the earth is so kind that, tickle her with a hoe and she will laugh with a harvest. Nevertheless, it is only where that mysterious luminary, the sun, shines upon her, that she is so generously yielding to the wants of man: where it does not, her cold, chaste bosom furnishes but little nutriment to her children.

Of the inexhaustible number of fruits which issue from her teeming womb, there is not one more useful or important to man than wheat. A history of its growth, location and peculiarities, therefore, cannot but be of interest, especially to the agricultural reader.

Six different kinds of wheat were cultivated in the time of Pliny by the Romans; in the present time there are from one hundred to two hundred and sixty different races of wheat, most of which, however, are distinctly referable to four or five principal types. The minor varieties are by no means permanent in their characters, except under special cultivation, and they degenerate when grown in unfavorable conditions. In like manner favorable conditions readily bring out improved qualities in inferior kinds. But it must not be concluded from this that Buffon and other writers are correct in their views, who regard the corn grains as artificial productions.

The principal types appear constant, for Decandolle recognized the seeds of "*Triticum turgedum*" in specimens from the Egyptian mummy cases; Loiseleur confirms this fact; and the Count de Sternberg, in 1834, raised plants of the common wheat from a sample obtained from an Egyptian tomb, which had lain there probably four thousand years. This is further confirmed by a note presented to the French Academy of Sciences by M. Guerin Meneville. Some botanists—to whom the absence of wild wheat in most countries is an indication of the artificial origin of the corn of our fields—regard it as a production of long-continued cultivation.

A few years ago M. Esprit Fabre, of Aged, gave an account of the production of what might be termed wheat of a grass called "*Egilops ovata*," growing wild in the south of France. It never exceeds a foot in height, and has a short, broad ear, with but four spikelets, only two of them being fertile. It has long been known to produce a variety called "*triticoïdes*," from its approach in some degree to the character of wheat. When this grass, in its wild state, produces this variety, a portion of the characteristic bristles or awns of the valves disappear, and the spikelets are generally barren. The ripe grain is long and flattened and silky at the top.

Such were the seeds sown by M. Fabre in his garden; the seeds annually sowed being sown year after year for twelve consecutive seasons. In the first year they produced plants three or four times as high as the original plant. The awns of the valves were still further diminished, and had a greater resemblance to wheat, the spikelets of the ears were more numerous, and most of them were sterile and the fertile spikelets yielded only one or two seeds.

These seeds, however, in the next year produced perfect plants; the spikelets in the ears were more numerous than before, and they mostly furnished a couple of grains. The ears, when ripe, separated less early from the axis than the parent plant and the grain was more farinaceous. A third year yielded still higher products. The fourth year presented no notable change. In the fifth year the stem grew to the length of three feet, and the grains were large enough when ripe to burst open the valves of the flowers. In the sixth year none of the spikelets had less than two, and some had three grains; the plants had the appearance of a true wheat ("Triticum"), and these they retained under cultivation in an open field, for four consecutive years, yielding a crop similar to the corn of the country.

These statements having obtained the corroborating testimony of Professor Dunal, of Montpellier, gave rise to much discussion; and while some botanists looked upon them as solving the problem of the origin of our cultivated wheats, others saw in them only an illustration of certain laws of crossing or hybridation. M. Godron, of Nancy, whose observations led him to believe that the triticoïdes," was a cross, fertilised an ear of the wild "ægilops ovata" with pollen of common wheat. The seed of the specimen when sown in the following year produces—not the "ovata," but the "triticoïdes." By fertilising with a beardless wheat, he obtained a short awned "triticoïdes," and with a long bearded wheat a long awned cross. This was thought to be the true solution of the question. The primitive grass did develop into corn, but the corn was the result of a cross between the grass and the wheat.

The grain of wheat, like that of all other grasses, is popularly called a "seed," but botanically it is a fruit; because in its ripe condition, it is enclosed in the adhering shell ("pericarp") corresponding to the loose pod of such fruits as the pea or bean. This husk is formed of a much firmer substance than the body of the grain, and in the process of grinding, becoming separated, takes with it the outer layers of the grain itself. These other layers differ from the central mass; while the body of the seed is composed of cells densely filled with white starch granules, which give the characteristic appearance to fine flour; the outer layers contain no starch, but oily and albuminous matter instead. Bran contains the

husk, the coats of the seed, and the envelope of the body of the seed.

If a portion of the flour be formed into a stiff paste and then thoroughly washed, the water will carry off a considerable portion of the dough, assuming at the same time, a milky appearance and a tenacious solid will be left behind, which is called the gluten. The milky liquid, if allowed to stand, will deposit a sediment which is the starch. The liquid remaining after the starch has settled at the bottom, is colorless, but holds in solution dextrine, grape sugar and albumen. It is called the extractive. These are the chief ingredients in flour, and the albumen and gluten are what are termed nitrogenised substances, having chemically, a close resemblance to the flesh of animals.

That the skin or cuticle of grasses contains a large portion of silice is proved by its hardness, and by large masses of vitrified matter being found whenever a haystack or heap of corn is accidentally consumed by fire. It is said that wheat straw may be melted into a colorless glass by the blow pipe without any addition, and that barley straw will melt into a glass of topaz yellow color.

The geographical distribution of grains is determined not by climate only, but depends on the civilization, industry and traffic of the people, as well as on historical events. Within the northern polar circle agriculture is found only in few places. In Siberia, grain reaches, at the most, only to sixty degrees; in the eastern parts scarcely above fifty-five degrees; and in Kamschatka there is no agriculture, even in the most southern parts, at fifty-one degrees. The polar limit of agriculture on the northwest coast of America, appears to be somewhat higher; for in the more southern Russian possessions, from fifty-seven to fifty-two degrees, barley and rye come to maturity; on the east coast, it is scarcely above fifty to fifty-two degrees. Only in Europe, namely in Lapland, does the polar limit reach the unusually high latitude of seventy degrees. Beyond this, dried fish, and here and there, potatoes, supply the place of grain.

The grains which extend farthest to the north in Europe, are barley and oats. These which in the milder climates, are not used for bread, afford to the inhabitants of the northern parts of Norway and Sweden, and the inhabitants of a part of Siberia and Scotland, their principal food. Rye is the next prevailing grain in a great part of the northern temperate zone, namely, in the south of Sweden and Norway, Denmark, and in all the countries bordering on the Baltic, the north of Germany and part of Siberia. In the latter, another very nutritious grain, buckwheat, is very frequently cultivated. In the zone where rye prevails, wheat is generally to be found; barley being then chiefly cultivated for

the manufacture of beer, and oats to supply horses. There follows a zone in Europe and western Asia, where rye disappears and wheat almost exclusively furnishes bread. The middle of the south of France, England, parts of Scotland, a part of Germany, Hungary, the Crimea and Caucasus, as also the parts of Middle Asia, where agriculture is followed, belong to this zone. Here the vine is also found; wine snpplanting the use of beer, barley is consequently less grown.

Next comes a district where wheat still abounds, but no longer exclusively furnishes bread; rice and maize becoming frequent. To this zone belong Portugal, Spain, the part of France on the Mediterranean, Nubia, Barbary and the Canary Island. In these latter countries, however, towards the south, the culture of maize or rice is always greater, and in some of them, several kinds of Sorghum (*Doura*) and pea (*Poa Abyssinica*) come to be added. In both these regions of wheat, rye only occurs at a considerable elevation; oats are more rare, and at last entirely disappear; barley alone affording food for horses and mules.

In the eastern part of the temperate zone of the old continent, in China and Japan, our northern kinds of grain are very unfrequent, and rice is found to predominate. The cause of this difference between the east and the west of the old continent appears to be in the manners and peculiarities of the people. In this country, that is, in North America, wheat and rye grow as in Europe. Maize is grown more in the western part than in the old continent, and rice may be said to predominate in the Southern States.

In the torid zone maize predominates in America, rice in Asia, and both these grains in nearly equal quantity in Africa. The cause of this distribution is doubtless an historical one, for Asia is the native country of rice, American of maize. In some situations, especially in the neighborhood of the tropics, wheat is also met with, but always subordinate to these other kinds of grain.

Beside rice and maize, there are in the torid zone, several grains and plants, which supply the inhabitants with food, either used along with rice and maize, or entirely occupying their places. Such are, in this continent, yams, (*Dioscorea alata*), the manihot (*latropha manihot*), and the batatas (*Convolvulus batatas*), the root of which, and the fruit of the pisang (*Banana musa*), furnish universal articles of food. In the same zone, in Africa, doura (*Sorghum*), pisang, manihot and yams occur. In the East Indies and the Indian Islands, several palms and cycadea, which produce the sago; pisang yams, batatas, and bread fruit, (*Artocarpus incisa*), are eaten. In the Islands of the South Sea, grain of

every kind disappears; its place being supplied by the bread fruit tree and the pisang. In the tropical parts of New Holland there is no agriculture. Nature does all the work; the inhabitants living on the produce of the sago, of various palms, and some species of arum.

In the high lands of South America, the distribution is similar to that of the other degrees of latitude. Maize, indeed grows to the height of between seven and eight thousand feet above the level of the sea, but only predominates between three and six thousand feet of elevation. Below three thousand feet, it is associated with the pisang and other vegetables; while from six thousand to nine thousand two hundred feet, the European grains abound—wheat in the lower regions, and rye and barley in the higher; along with which, *Chenopodium Quinoa*, as a nutritious plant, must also be enumerated. Potatoes alone are cultivated at a height of from nine thousand two hundred and sixty feet, to twelve thousand three hundred feet, not far from the extreme limit of vegetation.

To the south of the tropic of Capricorn wherever agriculture is practised considerable resemblance with the northern temperate zone may be observed. In the southern parts of Brazil, in Buenos Ayres, in Chili, wheat predominates; barley and rye, making their appearance, however, in the most southern parts of these countries, and in Van Dieman's Land. In New Zealand the culture of wheat is said to have been tried with success, but the inhabitants make the *Aerostichum furcatum*, their main article of sustenance.

Thus, it appears, in regard to the predominating kinds of grain, that the earth may be divided into five grand divisions, or kingdoms: The kingdom of rice, maize, of wheat, of rye, and lastly of barley and oats. The first three are the most extensive; maize has the greatest range of temperate, but rice may be said to support the greatest number of the human race.

Corn was the chief export from Britain under the Romans, and in the fourth century, the armies of Gaul and Germany depended for their annual supplies. In the year three hundred and fifty-nine some of the Roman colonies situated on the upper Rhine, having been plundered by their enemies, the Emperor Julian built a fleet of eight hundred barks, which he despatched to Britain for corn. The historian, Zosimus, states that, on its return, the inhabitants of the plundered towns and villages received enough, not only to last them during the winter, but, after they had sown their lands in the spring, to leave them sufficient for their subsistence until the next harvest. Malmesbury says, that in the reign of Stephen, London was a granary, where corn could always be bought cheaper than every where

else. King Richard, after his return from the East, issued a prohibition against the exportation of grain, that England might not suffer the want of its own abundance. The violation of this law is said to have been punished with merciless severity. Some vessels having been seized in the port of St. Valery, laden with English corn for the King of France, Richard burned both vessels and the town, hanged the seamen, and also put to death some monks who had been concerned in the illegal traffic. After all this devastation, the King divided the corn among the poor. In thirteen hundred and eighty-two a general proclamation was issued, prohibiting under the penalty of the confiscation of the vessel and cargo, the exportation of corn or malt to any foreign country, except to the King's territories in Gascony, Bayonne, Calais, Brest, Cherbourg, Berwick-upon-Tweed, and other strong places belonging to the King. Twelve years afterwards all English subjects were allowed to export corn to any country not hostile, on paying the dues. This system continued down to the establishment of free trade.

RECEIVED.

From Olm Brothers, Springfield, Mass., Catalogue of Dahlias, Verbenas, Phloxes, Summer Flowering Bulbs, &c., &c.

From Hovey & Co., Boston, Mass., Illustrated Guide to the Flower and Vegetable Garden, and Catalogue of Seeds for 1870.

From Dr. Montgomery Johns, Agricultural P. O., Md., Circular of Hot Bed Plants. Plants Delivered by Mail.

From B. W. Watson, (Old Colony Nurseries,) Plymouth, Mass., Catalogue of Garden and Flower Seeds for 1870.

From Chas. P. Peters, Concordville Nurseries, Concordville, Pa., Catalogue and Circular of Plants. See Advertisement.

From Ferre, Batchelder & Co., Springfield, Mass., Illustrated Descriptive Catalogue of Vegetables, Agricultural and Flower Seeds for 1870, including all the new varieties and novelties of the season.

From R. J. Halliday, Baltimore, Md., annual Catalogue of New and Popular Bedding, and Green House Plants, for 1870. See Advertisement.

"THE TECHNOLOGIST.—Especially Devoted to Engineering, Manufacturing and Building." This is a title of a handsome Monthly Journal of some forty quarto pages, just started by the Industrial Publication Co., of New York.—Price per annum \$2.

TROUT CULTURE: By Seth Green. A neat little book, pamphlet form, published by Seth Green & A. J. Collins, Caledonia, N. Y. For sale by D. M. Dewey, Rochester, New York. Price \$1. The best book on Fish Raising.

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ROTATION OF CROPS.

The importance of a rotation of crops is indeed a subject of vast moment to the agriculturist. De Condolle has advanced the theory and has supported it by strong argument, that of the nutriment which all plants receive and *digest*, they exude an inconsumable or unnutritive portion by their roots, and that this excrementitious matter unfit or poisons the soil for a second crop of the same kind until it is either consumed or neutralized by cultivation; this very matter however proving nutritious to other or different kinds of plants.

From this he argues that one crop of grain should not be succeeded by another of the same description, wheat after wheat, oats after oats, &c., &c.; nor reasoning from analogy, ought wheat to follow oats, as they are too nearly allied in their natures, and are supposed to feed on the same pabulum, both also coveting the same description—that which is cool and rather heavy.

The above fact will account for the fact that the clover crop often fails when sown for a long succession upon the same soil. Fibrous-rooted plants are always best followed by tap-rooted ones—plants raised for thier tops or grain may be best succeeded by those cultivated for their roots and the reverse. From attention to these facts arises the incalculably profitable system of "turnip husbandry" in England by which they are enabled to raise crops of grain of the finest quality in almost, if not quite double, the quantity, and at the same time carrying forward the improvement of the soil to an almost indefinite extent, to which may be added the means of supporting double the amount of stock by introducing the different varieties of roots, green crops for soiling, forming a link in a system by which the farmer is enabled to pay in rent, tithes and taxes which in almost every other country would be found unsupportable.

It is a *change of crops* which we want and not a *rest* for the land, and I sincerely believe that we should be relieved from one-half the evils which now assail us in the shape of blight, smut, rust, mildew, rot and a dozen others, whose name would then be forgotten—a *healthy* crop being mostly proof against this host of pestilences. And such a crop usually springs from a well-cultivated soil nor however made rich by the immediate application of large quantities of rich manure, for valuable as these may be in forcing on green crops to be mown for hay or fodder, I am convinced that they are of injury to the production of all kinds of grain.

Nor are these remarks alone applicable to the farm or farm crops, but also quite as applicable to the garden, where a careful attention to the rules of *rotation* will greatly increase the crops both in quality and quantity, as I have proved in my own case.—*Ajax, in Germantown Telegraph.*

Ladies Department.

THE GIRL FOR ME.

Just fair enough to be pretty,
Just gentle enough to be sweet,
Just saucy enough to be witty,
Just dainty enough to be neat.

Just tall enough to be graceful,
Just slight enough for a fay,
Just dress enough to be tasteful,
Just merry enough to be gay,

Just tears enough to be tender,
Just sighs enough to be sad,
Tones soft enough to remember,
Your heart through their cadence made glad.

Just meek enough for submission,
Just bold enough to be brave,
Just pride enough for ambition,
Just thoughtful enough to be grave.

A tongue that can talk without harming,
Just mischief enough to taste,
Manners pleasant enough to be charming,
That put you at once at your ease.

Disdain for to put presumption,
Sarcasm to answer a fool,
Cool contempt shown to assumption,
Proper dignity always the rule.

Flights of fairy fancy ethereal,
Devotion to science full paid,
Stuff of the sort of material
Poets and painters are made.

Generous enough, and kind-hearted,
Pure as the angles above;
O, from her may I never be parted,
For such is the maiden I love.

THE BEST WIFE IN THE WORLD.

The best little wife in the world!" said Herbert Ainscourt. "Of course—I dare say," responded Mr. Portcross. "But what's your extract idea of the best wife in the world! Jones says *he's* got the best wife in the world, because she keeps his stockings darned, takes him to church three times of a Sunday, and never lets him have an idea of his own. Jenkins says *he's* got the same identical article, but Jenkins' wife keeps all the money, draws his salary for him, and makes him live in the back kitchen because the parlor is too good for the family to use."

"Oh! but Daisy isn't a bit ogreish—a little submissive, soft-voiced thing that hasn't an idea except what is reflected from me. I tell you what, old fellow, I'm the master of my own house; I come when I please, and go when I please. Daisy never ventures on a word of reproach."

"Then, you ought to be ashamed of yourself, larking around at the clubs as you do, dissipated-bachelor fashion."

"Ashamed! what of?"

"Why, I suppose you owe some duties to your wife?"

"Where's the harm? My wife doesn't care."

"Probably you think so because she is quiet and submissive; but if she were to object—"

"Object! I'd like to hear her try it."

"Now, look here, Ainscourt, your wife may be a model wife, but you certainly are not a model husband. People are beginning to talk about the way you neglect that pretty little blue-eyed girl."

"I'll thank people to mind their own business. Neglect her indeed! Why, man, I love her as I love my own soul."

"Then, why don't you treat her as if you did?"

"Oh, come, Portcross, that question just shows what a regular old bachelor you are. It won't do to make too much of your wife, unless you want to spoil her."

Mr. Portcross shook his head.

"That sounds selfish. I don't like the ring of that metal."

And he went away, leaving Mr. Ainscourt to finish his game of billiards at leisure.

"What a regular old fuss budget Portcross is," laughed the latter. "Always poking his nose into somebody else's business. There's one comfort—I never pay any attention to what he says."

Meanwhile Mrs. Ainscourt was sitting alone in her drawing-room, her two little white hands tightly locked in one another, and her fair head slightly drooping—a delicate little apple-blossom of a woman, with blue, wistful eyes and curly flaxen hair, looking more like a grown-up child than a wife of twenty-one summers.

"O dear!" sighed Daisy. "It is so dull here. I wish Herbert would come home. He never spends any time with me now a-days, and I practice all his favorite songs, and read the newspapers, so I can talk about the things he's interested in, and try so hard to be entertaining. It's very strange."

And then her oval face brightened into sudden brilliance, and the sparkles stole into her eyes; for the quick ear had detected her husband's footsteps on the stairs. The next moment he came in.

"Well, pet, how are you?" with a playful pinch of her cheek. There are some *bon-bons* for you. Where are my light gloves?"

"O Herbert! you are not going away again?"

"I must, Daisy. There are a lot of fellows going to drive to High Bridge, and I'm one of the party. You can go over to my mother's for dinner, or send for one of your friends or something. There, good-bye, puss, I'm in a dence of a hurry."

And with one careless kiss pressed on the quivering damask rose of a mouth that was lifted up to him, he was gone.

Daisy Ainscourt neither went to her mother-in-law, nor sent for one of her girl-friends. She spent the evening all alone, pondering on the shadow which was fast overgrowing her life.

"What shall I do?" thought the little timid, shrinking wife. "Oh, what shall I do?"

But, child as she was, Daisy had a strong, resolute woman's heart within her, nor was she long in coming to a decision.

"Daisy," said her husband to her next day, "you haven't any objections to my attending the Orion Bal Masque?"

"Are masked balls nice places, Herbert?"

"O yes, everybody goes; only I thought I'd pay you the compliment of asking whether you disapproved or not."

"Can I go with you?"

"Well—ahem—not very well, this time, Daisy. You see, Mrs. Fenchurch really hinted so strongly for me to take her, that I couldn't help it."

"Very well," assented Daisy, meekly, and Herbert repeated within himself the psalm of praises he had chanted in Mr. Portcross' ears: "The best little wife in the world!"

But, notwithstanding all this, Mr. Ainscourt was not exactly pleased, when, at the selfsame Bal Masque, during the gay period of unmasking, he saw his wife's innocent face crowning the picturesque costume of a Bavarian peasant girl.

"Hallo!" he ejaculated, rather ungraciously, "you here!"

"Yes," lisped Daisy, with a girlish smile. "You said everybody went! And oh, Herbert, isn't it nice?"

Mr. Ainscourt said nothing more, but Mrs. Fenchurch

found him a very stupid companion for the remainder of the evening.

He was late at dinner the next day; but, late as he was, he found himself more punctual than his wife, and the solitary meal was half over before Mrs. Daisy tripped in, her cashmere shawl trailing over her shoulders, and her dimpled cheeks all pink with the fresh wind.

"Am I behind time? Really, I am so sorry! But we have been driving in the park, and—"

"We! Who are *we*?" growled her husband.

"Why, Colonel Adair and I—the Colonel Adair that you go out with so much."

"Now, look here Daisy!" ejaculated Mr. Ainscourt, rising from the table and pushing back his chair. "Adair isn't exactly the man I want you to drive with!"

"But you go everywhere with him!"

"I dare say—but you and I are two different persons."

"Now, dear Herbert," interposed Daisy, wilfully misunderstanding him, "you know I never was a bit proud, and the associates that are good enough for my husband are good enough for me. Let me give you a few more oysters."

Ainscourt looked sharply at his wife. Was she really in earnest, or was there a mocking undercurrent of satire in her tone? But he could not decide, so artless was her countenance.

"I'll talk to her about it sometime, was his internal decision. "Daisy," he said, carelessly, when dinner was over, "I've asked old Mrs. Barberry to come and spend the day with you to-morrow."

"Oh, have you? I'm sorry for I am engaged out to-morrow."

"You! Where?"

"Oh, at Delmonico's. I've joined a Woman's Rights Club, and we meet there to organize."

"The duce take woman's rights!" ejaculated the frate husband.

"Of course I don't believe in them, it's the fashion to belong to a club, and such a nice place to go to of evenings. I am dull here evenings, Herbert."

Herbert's heart smote him, but he answered, resolutely:

"I beg you will give up this ridiculous idea. What do women want of clubs?"

"What men do, I suppose."

"But I don't approve of it at all."

"You belong to three clubs, Herbert."

"That's altogether a different matter."

"But *why* is it different?"

"Hem—why? because—of course anybody can see *why*—it's self-evident."

"I must be very blind," said Mrs. Ainscourt, demurely, but I confess I can't discriminate the essential difference."

Herbert Ainscourt said no more, but he did not at all relish the change that had lately come over the spirit of Daisy's dream.

She *did* change somehow. She went out driving, here, there, and everywhere. He never knew when he was certain of a quiet evening with her; she joined not only the club, but innumerable societies for a thousand and one purposes, which took her away from home almost continually. Mr. Ainscourt chafed against the bit, but it was useless. Daisy always had an excuse to plead.

Presently her mother-in-law bore down upon her, an austere old lady in black satin and a chestnut-brown wig.

"Daisy, you are making my son wretched."

"Am I?" cried Daisy. "Dear me, I hadn't an idea of it! What's the trouble?"

"You must ask himself," said the mother-in-law, who believed—sensible old lady—in young married people's settling their own difficulties. All I know is the bare fact."

So Daisy went home to the drawing-room, where Herbert lay on the sofa pretending to read, but in reality brooding over his troubles.

"What's the matter, Herbert?" said Daisy, kneeling on the floor beside him, and putting her soft, cool hands on his fevered brow.

"The matter? Nothing much, only I am miserable," he sullenly answered.

"But why?" she persisted.

"Because you are so changed, Daisy."

"How am I changed?"

"You are never at home; you have lost the domesticity which was, in my eyes, your greatest charm. I never have you to myself any more. Daisy, don't you see how this is embittering my life."

"Does it make you unhappy?" she asked, softly.

"You know that it does, Daisy."

"And do you suppose I liked it, Herbert?"

"What do you mean?" he asked.

"I mean that I passed the first year of my married life in just such a lonesome way. You had no 'domesticity.' Clubs, drives, billiard playing, and champagne suppers engrossed your whole time. I, your wife, pined at home alone."

"But why didn't you tell me you were unhappy?"

"Because you would have laughed at the idea and called it a woman's whim. I resolved, when we were first married, to fritter away neither time nor breath in idle complaints. I have *not* complained; I have simply followed your example. If it was not a good one, whose fault was that? Not mine, surely."

"No, Daisy, not yours."

"I don't like this kind of life," went on Daisy. "It is a false excitement—a hollow diversion; but I persist in it for the same reason, I suppose, that you did—because it was the fashion. Now tell me, Herbert, whether you prefer a *fashionable* wife, or Daisy?"

"Daisy—a thousand times Daisy!"

But Daisy can't get along with a theatre-going, club-living husband."

"Then she shall have a husband who finds his greatest happiness at his own hearthstone—whose wife is his dearest treasure—who has tried the experience of surface and finds it unsatisfactory. Daisy, shall we begin our matrimonial career anew?"

And Daisy's whispered answer was, "Yes." "But what must you have thought of me all this time?" she asked him, after a little while.

"I know what I think *now*."

"And what is that?"

"I think," said Mr. Ainscourt, with emphasis, "that you are the best wife in the world."

DR. SAGE'S CATARRH REMEDY is no Patent Medicine humbug gotten up to dupe the ignorant and credulous nor is it represented as being "composed of rare and precious substances, brought from the four corners of the earth, carried seven times across the Great Desert of Saharah on the backs of fourteen camels, and brought across the Atlantic ocean on two ships." It is a simple, mild, soothing pleasant Remedy a perfect Specific for Chronic Nasal Catarrh, Cold in the head and kindred disease. The proprietor, R. V. Pierce, M. D., of Buffalo, N. Y., offers a reward of \$500 for a case of Catarrh he cannot cure. For sale by druggists. Sent by mail, postpaid, for sixty cents. Address the proprietor as above.

Dr. Pierce's Alt. Ext. or Golden Medical Discovery is the great Cough Remedy of the age.

DOMESTIC RECIPES.

ASPARAGUS.—Cut the white part of the stalks off, and throw it away—cut the lower part of the stalks in thin slices if tough, and boil them eight or ten minutes before the upper part is put in. Lay the remainder compactly together, tie it carefully in small bundles, and boil it from fifteen to twenty minutes, according to its age. Boil a little salt with them, and a quarter of a tea spoonful of saleratus, to two or three quarts of water, to preserve their fresh green color. Just before your asparagus is done, toast a slice of bread, moisten it with a little of the asparagus liquor, lay it in your asparagus dish, and butter it—then take up the asparagus carefully with a skimmer, and lay it on the toast, take off the string, salt it, and turn a little melted butter over the whole.

PEAS.—Peas should be put into boiling water, with salt and saleratus, in the proportion of a quarter of tea spoonful of saleratus to half a peck of peas. Boil them from fifteen to thirty minutes, according to their age and kind. When boiled tender, take them out of the water with a skimmer, salt and butter them to the taste. Peas to be good should be fresh gathered, and not shelled till just before they are cooked.

GREENS.—White mustard, spinach, water cresses, dandelions, and the leaves and roots of very small beets, are the best greens. Boil them with a little salt and saleratus in the water. If not fresh and plump, soak them in salt and water half an hour before cooking them. When they are boiled enough they will sink to the bottom of the pot.

TO STEW MUSHROOMS.—Cut off the lower part of the stem, as it is apt to have an earthy taste. Peel and put them in a saucepan, with just water enough at the bottom to prevent their burning to the pan. Put in a little salt, and shake them occasionally while stewing, to prevent their burnings. When they have stewed quite tender, put in a little butter and pepper—add spices and wine if you like. They should stew very slowly till tender, and not be seasoned till just before they are taken up. Serve them up on buttered toast.

TOMATOES.—If very ripe will skin easily; if not pour scalding water on them, and let them remain in it four or five minutes. Peel and put them in a stew pan, with a table spoonful of water, if not very juicy; if so, no water will be required. Put in a little salt, and stew them for half an hour; then turn them into a deep dish with buttered toast. Another way of cooking them, which is considered very nice by epicures, is to put them in a deep dish, with fine bread crumbs, crackers pounded fine, a layer of each alternately; put small bits of butter, a little salt and pepper on each layer—some cooks add a little nutmeg and sugar. Have a layer of bread crumbs on the top. Bake it three-quarters of an hour.

TO BOIL CRABS.—Have a pot of boiling water in which is salt (a table spoonful to the quart,) throw the crabs in, and keep them boiling briskly for twelve minutes, if large; then take them out, wipe the shells clean, and rub them over with a bit of butter; break off the small claws; spread a napkin on a large dish, and lay the crabs on it in regular rows, beginning at the outside. Serve with cold butter and rolls.

TO CHOOSE LOBSTERS.—These are chosen more by weight than size, the heaviest are best; a good small sized one will not unfrequently be found to weigh as heavily as one much larger. If fresh, a lobster will be lively and the claws have a strong motion when the eyes are pressed with the finger.

The Maryland Farmer is mailed to subscribers at the low price of \$1.50 per annum.

Fruit Grafting.

As the time will soon be here when grafting will be in order, we repeat our former advice that every farmer should do his own grafting. It is a very easy operation when once understood, and this is readily done by seeing it done. A sharp penknife and a good fine saw are indispensable. Splitting the stalk so that the bark shall not be bruised—and shaping the scion wedge-fashion both ways, preserving also the bark uninjured—and placing the *rim of the wood* of both stock and scion exactly together, so that the sap can intermingle—there is no danger of failure if properly waxed. We make a shoulder to the graft and think it adds to the certainty of success, though probably weakens it. We prefer also two eyes or buds to a graft, and would rather only one than more than two. One year's wood should always be used when it can be obtained, as it is more certain to take and grows more vigorously.

We wish to remind those preparing grafting wax, that we have found four parts of rosin, one part of beeswax, and one part beef tallow, to be the best proportions. Melt them together in a skillet, (which is the best,) or a tincup, and mix well. It should remain in the vessel and used as needed. Twenty or thirty scions can be waxed with one heating up. When much grafting is to be done, a little fire for heating the wax should be made on the spot, between two bricks or stones.

We have seen various preparations for making grafting wax and we believe we have tried them all, but prefer our own. Applying it warm or hot does no injury to the graft. The object to attain in the proportion is that the wax will not crack in cool, dry weather, or run in warm weather. If, however, upon trial, different proportions be required, the foregoing can be altered, though after trying them in several ways, we have come back to these.—*Ger. Telegraph.*

TO GIVE ONIONS AN EARLY START.—Mr. H. Benjamin, of Ontario county, gives the following method of preparing onion seed for planting:

About the first of April I put my seed into blood warm water, set it where it will not freeze, and let it remain from twelve to fifteen days. I am careful to have the water always cover all the seed. In two or three days, one can tell if the seed be good, by the strong onion smell it will emit in case it is all right. I drain the water off from the seed, and stir amongst it some plaster, keeping it however, a little moist and warm. At the end of three days the seed will have thrown out sprouts half an inch long. I then plant it, covering about half an inch with earth, and in six days one can see the rows.